

Case 8

Rock Products and BUILDING MATERIALS

INCORPORATING DEALERS BUILDING MATERIAL RECORD

Volume XVIII

CHICAGO, ILL., OCTOBER 7, 1916

Number 11

CONCRETE CONSTRUCTION IN CITY AND TOWN-

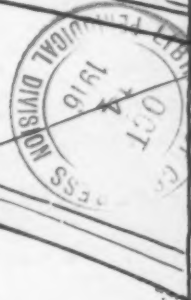
PERMANENT
FIREPROOF
ATTRACTIVE

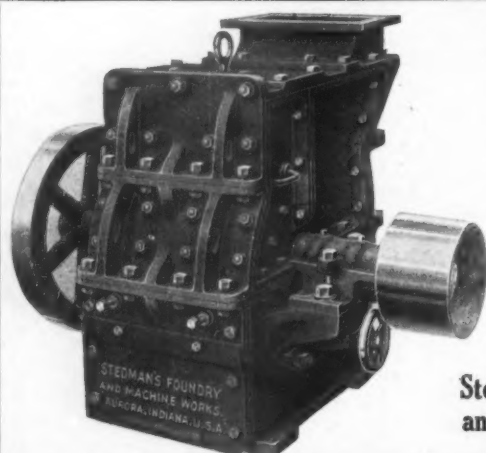


Concrete for Permanence
USE

SAYLOR'S PORTLAND CEMENT

COPLAY CEMENT MANUFACTURING CO.
Philadelphia New York Boston Jacksonville, Fla.





30 Years of Crusher Ex- perience are built into the Stedman Pulverizer

After four years of experimentation by expert pulverizing engineers, the present Stedman Pulverizer means the highest efficiency for any quarry operation.

Write for Catalog

**Stedman's Foundry
and Machine Works**
AURORA, IND.



"PENNSYLVANIA"

Hammer Crushers For Crushing and Pulverizing Limestone, Gypsum, Marl, Shale, Etc.

Main Frame of Steel, "Ball and Socket" self-aligning Bearings; forged Steel Shaft; Steel Wear Liners; Cage adjustable by hand wheel while Crusher is running.

No other hammer Crusher has such a big Safety Factor.
Pennsylvania Crusher Co.
New York PHILADELPHIA Pittsburgh

This Is Our Type "F" Bucket

Write us your condition and requirements and we will advise you if our equipment is adapted to your work.
The Cable Excavator Co.
Commercial Trust Building,
PHILADELPHIA, PENNA.



Daily Capacity
9000 Barrels



Quality
Quantity
Service

MORE THAN FIFTEEN YEARS OF SATISFACTION

FOUR PLANTS:

ALPENA, DETROIT, WYANDOTTE and CLEVELAND

HURON and WYANDOTTE

Great Water and Rail Facilities
Best Serve the Entire Middle West

EVERY BARREL TESTED AND GUARANTEED

SOLD BY THE BEST DEALERS

USED BY THE BEST BUILDERS

Main Offices: 1525 Ford Building, Detroit, Mich.

Daily Capacity
9000 Barrels



Quality
Quantity
Service



Beautiful Houses from Illinois to Massachusetts are Roofed with Reynolds Flexible Asphalt Shingles

A multitude of pretentious residences in a score of states are giving ample proof of the long-lasting surface of Reynolds Flexible Asphalt Shingles.

Every type of modern home can be protected and beautified, at lower cost, with these time-

tried, weather-tested shingles. They withstand the ravages of driving rain, pelting hail, hottest sun and heaviest snow without warping, cracking, splitting, curling or blowing off. Sparks cannot set them of fire. Long Exposure cannot dull their rich color. Adaptable to every style of pitched roof, and make possible unusual architectural effects, such as roll edges, thatch effects and rounded corners.

Reynolds Asphalt Shingles

Guaranteed for 10 years—will wear many years longer—
Write for liberal agency proposition.

Rough-surfaced weather defiers made of crushed slate or granite securely embedded in pure Asphalt. Natural colors of garnet, red or gray-green which never fade and never need painting. We are the original makers of flexible asphalt slate shingles and tested them for ten years before putting them on the market. They are uniform in size—8 ins. by 13½ ins.—and are laid 4 ins. to the weather. Easily and quickly laid.

Let us send you a booklet showing photographs of modern houses roofed with Reynolds Asphalt Shingles. Write for a copy TODAY.

H. M. REYNOLDS ASPHALT SHINGLE CO.
Original Manufacturer
Established 1865
Grand Rapids, Mich.
Members of National Builders' Supply Association

WHEELING WALL PLASTER CO.

WHEELING, WEST VIRGINIA



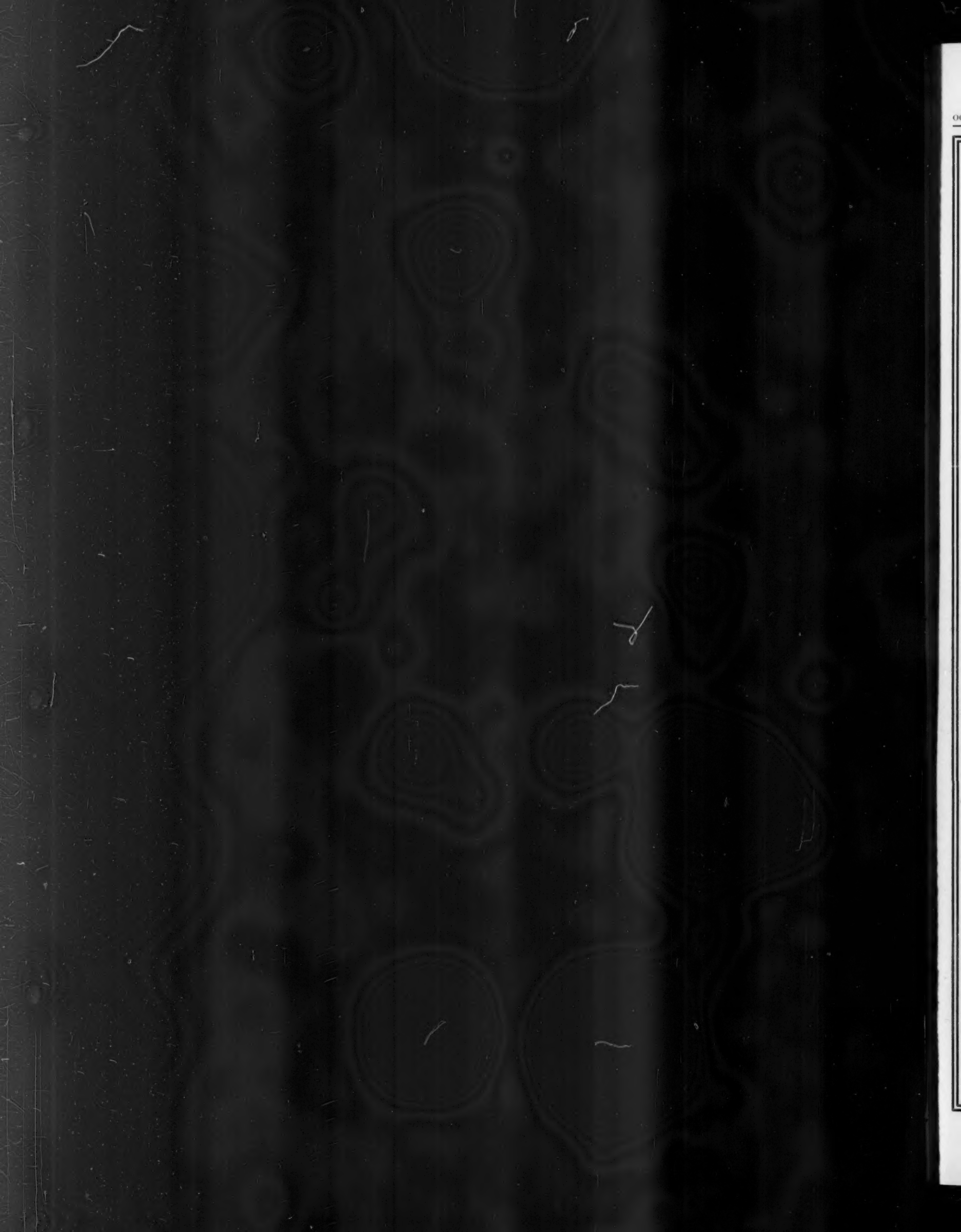
Makers and Wholesalers
of high grade

BUILDING MATERIALS —and— ROOFING PRODUCTS

Car Loads and Local Shipments

Our Service Will Please You

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



The Present Users *of the* LAKEWOOD BUCKET

are the best guarantee of its Efficiency

Engineers and quarrymen of reputation for high grade equipment and economical operations—who study all types of machinery and choose only after careful tests—are among the users of Lakewood Buckets.

What does this indicate?

It means that the 18 years of Lakewood specialized experience in bucket efficiency and the study of actual quarry conditions in all parts of the country—is at their service, and at yours.

Why not get in touch with Lakewood Engineers today?

The Lakewood Engineering Company
Cleveland

*(Manufacturers of quarry cars, clam shell buckets,
portable tracks and switches, bin gates, etc.)*



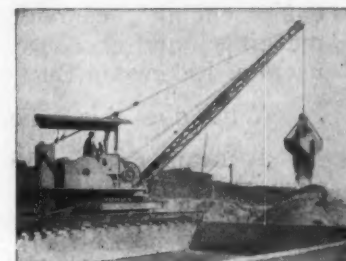
Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

Here Are Some Substitutes for the Common Labor That Is So Hard to Get and Keep

More and more the scarcity of common labor is forcing the installation of mechanical equipment for handling rock, gravel, sand, cement and other building materials. Now is the time to investigate



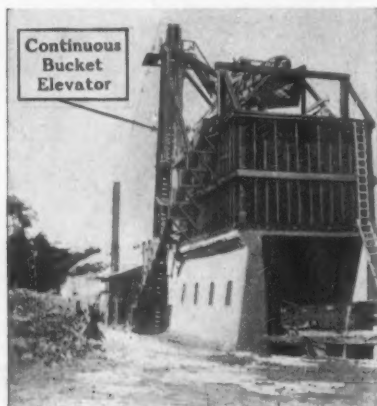
Wagon Loader—Loading Gravel One Ton Per Minute



Locomotive Crane Unloading Sand

Link-Belt Equipment

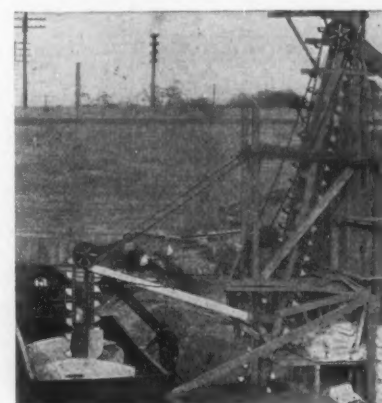
In selecting mechanical equipment it is well to study the conditions to be met from the viewpoint of engineers who have specialized in such work. Our engineers have specialized in the study of your problems. Let them help you in selecting mechanical equipment which is suited to your work.



Slag Plant Equipment

We develop and manufacture time-and-labor-saving machines for the contractor's construction plant, as well as for the preparation of stone, gravel, sand, etc., for the market. Let us tell you of a plant in your vicinity that will show you the utility, ruggedness and durability of Link-Belt Machinery. Our Book No. 213 tells about many installations of

Link-Belt machinery of interest to you, and illustrates some of the applications.



Link-Belt Car Unloader

LINK-BELT COMPANY

PHILADELPHIA

New York.....209 Broadway
Pittsburgh.....1501 Park Bldg.
Boston.....40 Federal St.
St. Louis.....Central Natl. Bk. Bldg.
Buffalo.....698 Ellicott Square
Detroit.....782 Dime Bank Bldg.

CHICAGO

Louisville.....Frederick Wehle, Starks Bldg.
Knoxville, Tenn.....D. T. Blakely, Empire Bldg.
New Orleans.....C. O. Hinz, Hibernia Bk. Bldg.
Denver.....Lindrooth, Shubart & Co., Boston Bldg.
San Francisco.....N. D. Phelps, 461 Market St.
Toronto.....Canadian Link-Belt Co., Ltd.

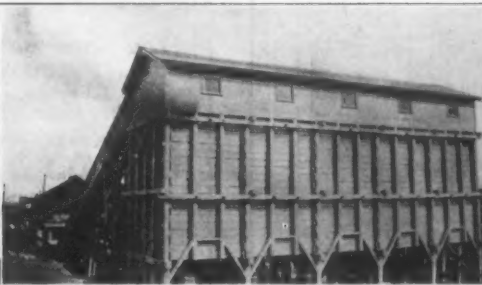
INDIANAPOLIS

Cleveland.....1304 Rockefeller Bldg.
Wilkes Barre.....2nd Nat. Bank Bldg.
Minneapolis.....418 So. Third St.
Seattle.....580 1st Ave. South
Portland, Ore.....14th and Lovejoy Sts.
Los Angeles.....161 N. Los Angeles St.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



Sand & Gravel Unloading and Storage Plant
Built for the American Sand & Gravel Co.
Yard No. 3, Chicago



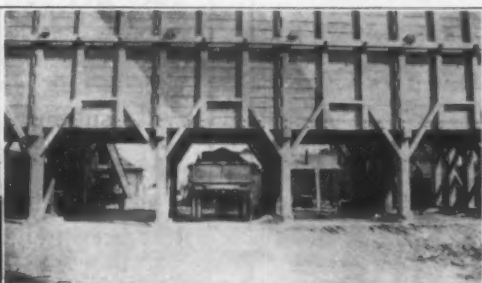
Retail Material Unloading and Storage Plant
for The Chicago & Oak Park Supply Co.



No. 18 Primary Rock Crushing Plant
for the A. C. O'Laughlin Co.,
Bellwood Quarry



550-yard Retail Service Bins
Built for American Sand & Gravel Co.
Yard No. 1, Chicago



10 seconds required to load big trucks in
Seaverns Built Plant



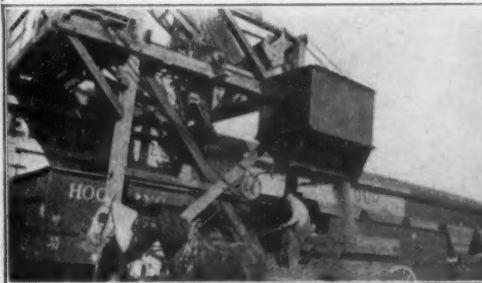
200 Yard Service Bin
Built for American Sand & Gravel Co.
Yard No. 6, Chicago

JAMES B. SEAVERNS

ENGINEER & CONTRACTOR

PEOPLES GAS BUILDING, CHICAGO

COAL & SAND YARD IMPROVEMENTS, ROCK CRUSHING PLANTS,
SAND & GRAVEL WASHING PLANTS, RAILROAD COALING STATIONS,
LOCOMOTIVE CRANES, CLAMSHELL BUCKETS, COAL HANDLING,
CONVEYING AND LABOR SAVING MACHINERY. MANUFACTURER
OF SEAVERNS CAR UNLOADERS FOR REDUCING LABOR COSTS &
INCREASING MOTOR TRUCK EFFICIENCY.



A Seaverns Car Unloader
keeps wagons busy all the time
Unloads at 2c per yard



Type "B" & "C" Seaverns Car Unloader
Unloading stone from Railroad Car to Trucks or
Shed at the rate of One Yard per Minute



Seaverns Automatic Dump for Rear Dump Quarry Cars
Brownell Improvement Co.'s Quarry
Thornton, Ill.

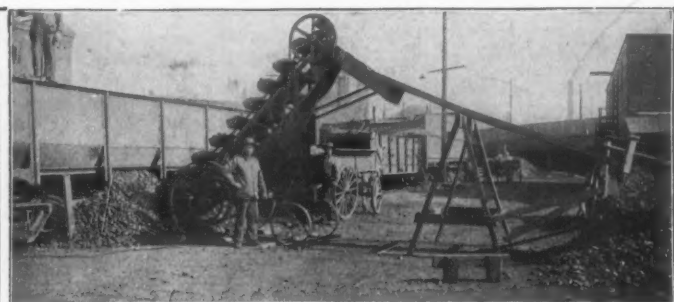


Type "C" Seaverns Car Unloader
Unloads boiler house coal at the rate of 50 tons per hour at plant
of the International Harvester Co., Chicago. (A duplicate order
has just been received from this company.)



Seaverns Automatic Car Dump
Installed at the A. C. O'Laughlin Co. Quarry
Bellwood, Ill.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

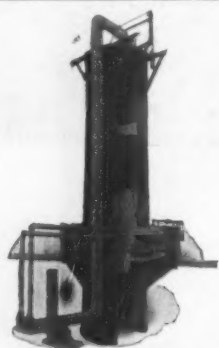


(Patented)

Unload Your "HAISS" DIGGING WAGON LOADER Cars with Trap rock, sand, gravel, coal, coke, etc., can be unloaded from cars or loaded into your trucks at a cost of less than one cent per cubic yard for gasoline or electricity. Capacity one yard per minute.

Write for price and descriptive matter

The George Haiss Mfg. Co., Inc. 146th St. & Rider Ave. New York City



Doherty-Eldred Lime Kilns

Complete Lime Burning Plants

Refractory Material for Linings

The Improved Equipment Co.
Combustion Engineers 60 Wall St., New York City



Plymouth Train Leaving Mine of Southern Connellsville Coke Co.

"Halves Cost of Mules in Mine Haulage"

—Says S. A. Carson

It is costing The Southern Connellsville Coke Co., of Uniontown, Pa., just half as much to operate The Plymouth as it did to operate with horses and mules. Here The Plymouth makes thirty-two complete trips each eight-hour day, covering 8,000 feet each trip in delivering coal to the coke furnaces.

The Plymouth

Gasoline Industrial Locomotive

Has These Six Points of Superiority

1—It is cheaper to buy. 2—It is cheaper to install. 3—It is cheaper to operate. 4—It is cheaper to maintain. 5—It has greater draw-bar pull. 6—It has greater traction pull.

General Manager Carson Proves This—He Says:

"Our Plymouth is costing us just half as much as under the old system. We pay \$2.50 a day for labor to operate it and use five gallons of gasoline and one quart of lubricant. We haul eight wagon trips, fifty bushels to the wagon, making three or four trips of 8,000 feet per hour easily. We have no trouble from fumes in the mine and the friction drive is first-class."

GET THIS BOOK Our new book—just off the press—tells the complete story of this particular installation and of many other installations, giving full description, cost data and other valuable information regarding haulage problems similar to your own. A copy is yours for the asking—send for it today.

THE J. D. FATE CO., 210 Riggs Ave., Plymouth, Ohio

You can sack Limestone Screenings or other Pulverized Rock Products and Truck Into Car or Storage for Ten Cents a Ton with the

BATES SYSTEM FOR FILLING BAGS

What is your present packing cost per ton?

Send us your proposition—our engineers will submit designs and suggestions.

The Bates System has been generally adopted by Portland Cement Manufacturers.

We also manufacture Bag Ties and Tying Tools.

BATES VALVE BAG CO.
1463 McCormick Building Chicago, Ill.



What a Crushed Stone Plant Is Doing



THE Duluth Crushed Stone Co., West Duluth, Minn., have recently placed in service an Ohio Locomotive Crane to load and unload crushed stone and other materials.

Let them tell you direct what they think of Ohio Cranes

90% of the "castings" are basic open hearth steel

Write for Catalogue No. 11

Ohio Locomotive Crane Co., Poplar St., Bucyrus, O.

30 Church St. New York
Fisher Bldg. Chicago
Home Life Bldg. Washington, D. C.
Oliver Bldg. Pittsburgh
Kelly, Powell, Ltd. Winnipeg, Montreal
Edward R. Bacon Co. San Francisco
Contractors Equip't Co. Seattle, Portland
N. C. Walpole Birmingham, Ala.
950 Rockefeller Bldg. Cleveland, O.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



THE ERIE SHOVEL *Itself* Is Its Own Best Salesman

Every ERIE SHOVEL sold quickly sells more
ERIEs in the vicinity in which it is working

It does not take long for the

Erie Revolving Shovel

To demonstrate its complete superiority when you watch it handling material. Its speed, power, wide working range, and the ease with which it is operated are apparent. Compare the ERIE from any standpoint you like and you will be bound to recognize that it is the better shovel you have been looking for. Then make a careful inspection of the ERIE—look over its design, the accessibility of all

working parts, the unusually sturdy construction throughout; the high grade workmanship and the clean-cut modern appearance of the machine right straight through.

We will be glad to leave the decision entirely to your own judgment after you have done this; for the ERIE SHOVEL itself is indeed its own very best salesman.

Of course you want full particulars

Write for Bulletin R-14 today

BALL ENGINE COMPANY, Erie, Pa.



DID YOU EVER FEEL THE NEED OF A LIGHTER, CHEAPER, SIMPLER LOCOMOTIVE CRANE?

mounted on road wheels to run anywhere?

BYERS

AUTO-CRANE

Fills that need. We will tell you all about it.

Chicago Office: 1440 Monadnock Bldg.
Cleveland Office: 601 Sincere Bldg.

The John F. Byers Machine Co.
310 Sycamore St., Ravenna, O.
(HOISTING ENGINES AND DERRICKS)

CRUSHED ROCK LIME CEMENT QUARRIES

WM. A. POLLOCK, C. E., E. M.

Consulting Engineer
Allentown, Pa.

Advice as to economic operation of quarries. Reports on properties for manufacture of lime and cement. Prospecting.



The Brainard Pulverizer

Positively does not grind the material, works by impact only and will handle either wet or dry feed. All principal wearing parts are made of the best grade of manganese steel, and the casing is steel lined throughout.

A guaranteed Pulverizer, strong, durable and efficient. Made in four sizes.

WRITE FOR FURTHER INFORMATION

Midland Crusher-Pulverizer Company
Old Colony Building, Chicago

The ALL-Steel K-B PULVERIZER Saves Power Costs

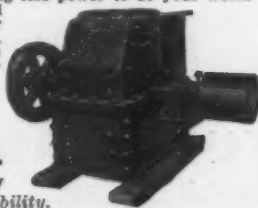
It cuts down your running expenses by using less power to do your work. Consuming only 10 h.p.-15 h.p., the No. 1 machine will reduce 4-7 tons of stone, or 8-13 tons of lime per hour from 3" to dust. The No. 2 K-B Pulverizer consumes only 20 h.p.-25 h.p. to reduce 10-15 tons of stone or 20-25 tons of lime per hour.

Write today for full details to the

K-B PULVERIZER CO., Inc.
86 Worth St., New York City

Built for Service and Durability.

THE ALL-STEEL K-B PULVERIZER SAVES POWER COSTS

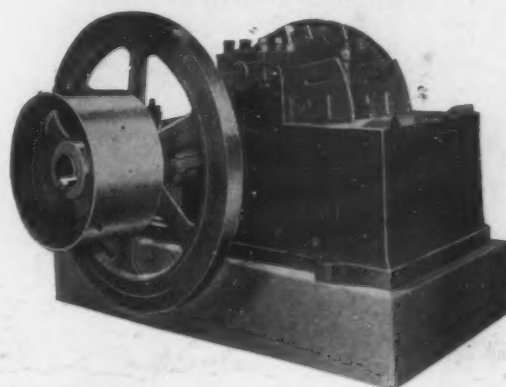


One Advantage of the Blake Type Crusher

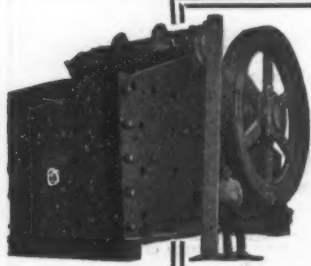
The bed, bumpers and all movable parts are cast with all holes cored, requiring no machine work whatever, which enables us to make the castings stronger to withstand the wear, and eliminates the possibility of mistakes in making repairs and lessens the cost of construction as well as the repairs to the consumer.

Write today for further information and one of our booklets

Webb City and Carterville Foundry & Machine Works
Main Office, Webb City, Mo.



Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



**TRAYLOR
GIANT
JAW
CRUSHERS**

built in
sizes from
24"x48" to
66"x86"

Jaw
Opening
Weighing
from
80,000 lbs.
to
800,000 lbs.

Send for
Bulletin J-1.

Another Evidence of
SUPERIORITY
of
TRAYLOR

Crushing, Elevating and
Screening Equipment

In Competition with the World, the

OKLAHOMA PORTLAND CEMENT CO.

Purchased

A 36" x 72" Traylor Jaw Crusher
2 84" x 20" Screens complete with
Dust Jackets, and
1 72" x 14" Scalping Screen

MERIT WILL TELL

Traylor Engineering & Mfg. Co.

Main Office and Works
Allentown, Pa.

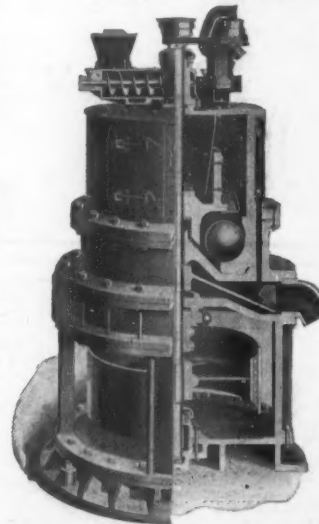
New York Office
24 Church St.

Western Office
Salt Lake City

The Fuller-Lehigh Pulverizer Mill

A Complete Self-Contained Unit

The most economical mill for producing
Agricultural Limestone



Reduces lump rock to
20, 40, 60, 80, 100,
or 200 mesh.

Requires no outside ac-
cessory equipment.

Requires no overhead
shafts, drives or
screens.

All material discharged
from mill is finished
product.

No inside journals or
bearings.

No inside lubrication.
Uniform feeding sys-
tem.

Constant and free dis-
charge.

Low installation cost.

Low operating cost.

Low lubricating cost.

Dustless operation.

Built in sizes to meet the requirements of your trade. Grinds
rock to meet the specifications of all Agricultural Experiment
Stations.

SEND FOR CATALOG NO. 70

Lehigh Car, Wheel & Axle Works

Main Office and Works:

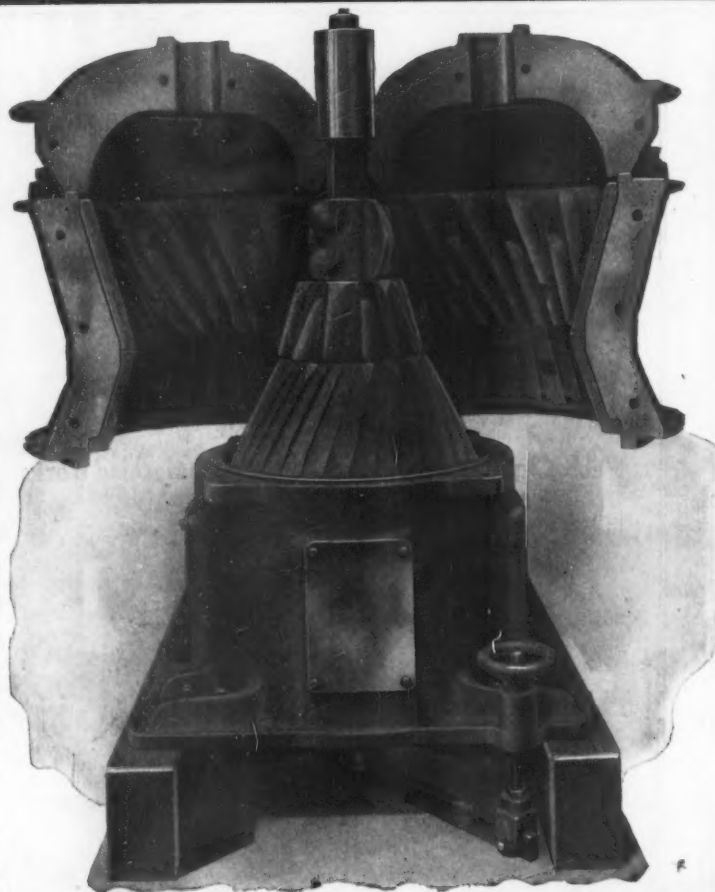
Catasauqua, Penna.

BRANCHES:

New York City: 50 Church St.

Pittsburgh: Farmers Bk. Bldg.

Chicago: McCormick Bldg.



**STURTEVANT
OPEN-DOOR ROTARY
FINE CRUSHERS**

PATENTED

Reduce Rocks of moderate hardness to $\frac{1}{2}$
inch and finer. For Lime, Gypsum, Shale,
Clay, Clinker, Coal, etc., they have no equal.
Open the doors and every wearing part is ex-
posed for inspection, renewal or to remove
iron or other foreign substances which often
get into and stop such machinery.

Rotary Crushers are slow speed, durable ma-
chines, adjustable for fine or coarse work
while running, require small power and no
special foundation.

Hundreds in use.

Sold on approval.

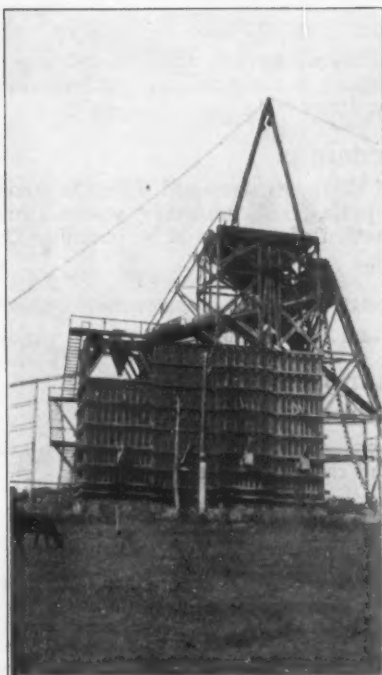
Send for Catalogue No. 63.

STURTEVANT MILL CO.

HARRISON SQUARE

BOSTON, MASS.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



DULL EQUIPMENT IS ASSURANCE OF SUCCESS

Dull Gravel Washing Equipment has been installed in dozens of plants throughout the country, every one of which is giving excellent satisfaction to the owner. Our numerous patented labor saving, cost cutting devices, together with our fifteen years' experience in this particular field enables us to handle successfully the most difficult gravel handling problems. Dull Engineering and Dull Equipment is assurance of success and satisfaction.

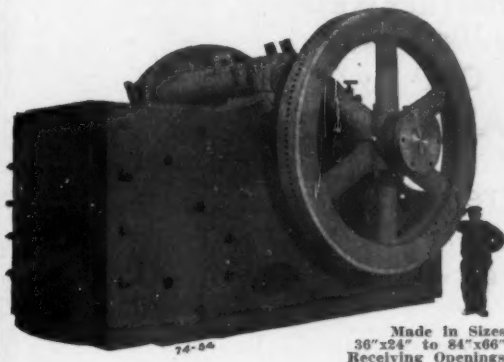
If you contemplate additions or changes to your present equipment, why not put the proposition up to our engineering department. Our main office at Chicago has recently installed motion picture apparatus and can show you complete illustrations of what our machinery is doing in actual service.

Write for Catalog "Plants for Washing Sand and Gravel"

THE RAYMOND W. DULL COMPANY
1914 Conway Bldg. Chicago, Ill.

McCully and Superior Crushers are chosen for big, important plants because—

SUPERIOR Jaw Crusher



Made in Sizes
36"x24" to 84"x66"
Receiving Openings

Tangible Facts

An enviable record during five years on trap rock.

A dozen machines of this type giving eminent satisfaction.

The cast-steel construction throughout, spring supported pitman, adjustment for changing product. Manganese steel wearing parts, engine type flywheels, automatic lubrication, water cooled main bearings.

Leaders in the development of Large Crushers, Rolls, Screens, Elevators and Tube Mills.

Write for Catalog PM 4-58

Salient Features

Main shaft supported at the only logical point; that of no gyration.

Hopper may be built into working floor, as it is not disturbed when changing head or resetting concaves.

Positive protection of eccentric from grit and dust. Cannot wear to a loose fit.

Flanged wearing plates.

Self-tightening head.

Removable countershaft bearing.

Bushed bottom plate.

Steel gears.

Automatic Lubrication.

McCULLY Gyratory Crusher



Built in the Size to Meet Your Requirement.

WORTHINGTON PUMP AND MACHINERY CORPORATION

New York Office: 115 Broadway

DISTRICT OFFICES: Chicago, El Paso, San Francisco

Power & Mining Machinery Works: Cudahy, Wis.

W. E. Austin Machinery Co., Atlanta, Ga.

M 349.4

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



The Business that comes to you

Mt. Sinai Hospital, Cleveland
Geo. B. Post & Sons, Architects Lennox-Haldeman Co., Plasterers

Tiger Brand used throughout for scratch brown and white coat plaster.

There is more business every day coming without solicitation to the dealer who handles

Tiger Brand White Rock Finish (Hydrated Lime)

This lime has been so widely advertised and so successfully used that many architects always specify it and contractors prefer to use it.

The Tiger Brand agency is worth money to you.



The KELLEY ISLAND LIME & TRANSPORT CO.
CLEVELAND, OHIO

GRANITE

Crushed to proper sizes

For all kinds of paving and construction work. Its use insures durable, lasting qualities, and is a distinct economy.

Granite Screenings

Clean and sharp, in sizes and different colors, for concrete, paving and surfacing walks. Increase the satisfaction of your trade by handling Granite Screenings.

Granite Paving Blocks

Standard and Special sizes to meet all conditions.

Hardest and most durable Granite quarried

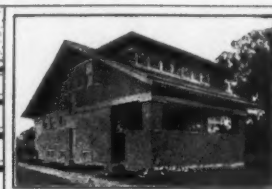
Large stocks—prompt shipments—many quarries—water and rail shipments.

Granite Saves Contractors from Loss

Officials from Criticism and gives one hundred cents of value for every dollar expended.

WISCONSIN GRANITE CO.

Main Office: Lumber Exchange, Chicago, Illinois



The cup of Sykes Expanded Cup Metal Lath is so formed that the Stucco or Plaster takes a tight grip and holds. A perfect key is assured. No furring strips are needed—this feature saves 5 to 10c a sq. yd.

SYKES EXPANDED CUP METAL LATH

SELF-FURRING

It is a veritable backbone of strength

Being cut with wider strands, it is heavier than other metal laths of the same gauge and therefore more rigid, stronger—gives a wall longer life.

Can't be applied wrong. Best for interior as well as exterior work. Indorsed by U. S. Government for Post Office work. Approved by architects, contractors and builders.

Write for Free Sample and for Booklet—Specifications for Stucco on Metal Lath

SYKES METAL LATH & ROOFING CO.

508 RIVER ROAD

WARREN, OHIO

OCT 12 1916

Rock Products and BUILDING MATERIALS

INCORPORATING DEALERS BUILDING MATERIAL RECORD

Volume XVIII

CHICAGO, OCTOBER 7, 1916

Number 11

PUBLISHED SEMI-MONTHLY.

DEVOTED TO

Quarry Products, Cement, Lime, Plaster, Sand and Gravel, Clay Products and Building Specialties—Fireproof Building and Road Construction.

THE FRANCIS PUBLISHING COMPANY.

EDGAR H. DEFEBAGH, Pres.

Seventh Floor, Ellsworth Bldg., 537 So. Dearborn St., Chicago, Ill., U. S. A.
Telephone: Harrison 8086, 8087 and 8088.

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H. F. AKE, Secretary.
DRUSUS H. NICHOLS, Advertising Manager.

Communications on subjects of interest to any branch of the industry are solicited and will be paid for if available.

Every reader is invited to make the office of Rock Products and Building Materials his headquarters while in Chicago.

Editorial and advertising copy should reach this office at least five days preceding publication date.

TERMS OF ANNUAL SUBSCRIPTION.

In the United States and Possessions.....\$1.00

In all other Countries in the Postal Union.....\$1.50

Subscriptions are payable in advance, and in default of written orders to the contrary, are continued at our option.

Advertising rates furnished on application.

Published on the 7th and 22nd of each month.

Entered as second-class matter July 2nd, 1907, at the Postoffice at Chicago, Illinois, under act of March 3rd, 1879.

Copyright, 1915 by E. H. Defebagh.

There are few, if any, persons reading periodicals of the present day who are not familiar with concrete and concrete construction. Whenever the erection of a building, bridge or road is contemplated, concrete is given due consideration. The public has taken kindly to the slogan of the cement industry and has shown its belief in "Concrete for Permanence."

As the baseball season approaches the close there is room for the expansion of interest in the Presidential campaign. As soon as the final pennant is disposed of we will have a few weeks of political excitement and then forget all about it. Meanwhile, poor old dilapidated Europe continues its insane universal war which has neither beginning nor end and no definite purpose that has yet been stated, so there is no chance of ever reaching a conclusion. Level-headed business in this enlightened country is giving about the same amount of attention to all three of these important issues, which is not enough to interfere with progress or prosperity.

With an exceptionally good season for road building purposes the mileage of new construction in 1916 will easily exceed all previous experience. This is true in spite of the fact that many of the road contractors have experienced great difficulty in securing a sufficient number of laborers to work full handed. The transportation feature, which is the most important of all, has been efficiently solved by the general introduction of the motor truck. In fact, the road contractor's outfit no longer consists of a small army of men with picks and shovels, living in camps upon the right-of-way, but a few men operating a very heavy investment in machinery, who come to work and return home every day in motor cars. Probably there is no industry that has undergone such a complete reorganization of methods as that of road building in the last year or two.

Numbers of dealers in the smaller towns freely announce that 1916 is far and away the best business year in a decade. This kind of information is not confined to one section of the country but seems to indicate the general feeling of building material men throughout the whole country.

The recent report of the Geological Survey on the condition of the lime industry in the country for the year 1915 is gratifying in that it shows an increase in the quantity and valuation of the lime produced. The publicity given hydrated lime has had the expected result, and this infant of the industry is getting to be quite a child.

The greatly increased cost of explosives and the scarcity and high price of common labor is having an injurious effect upon the stone producing plants of the country. A close study of the quarry and crushing plant, with a view to supplanting hand labor with machinery, is highly advisable at the present time. Wherever the installation of time-saving machinery has taken place the returns have more than justified the expenditure. A study of explosives might also prove beneficial.

Retailers should urge their customers who contemplate fall building to commence activities at once. There are numerous elements which are bound to enter into building construction this fall which will not permit the completion of structures started late in the season and which are expected for occupancy before mid-winter sets in. By pushing their plans forward a month builders will be more certain of having their jobs finished when desired. By doing a little promotion work of this kind dealers will enjoy the added profit which comes from selling the material.

Sand and gravel producers are enjoying a prosperous season. The summer's business has been good and orders at the present time are plentiful. Prices are fair. Numerous plants contemplate increasing their capacity next season. Among the plants now in the course of construction, there are several being built on the unit system, that is, a full-sized plant is now being built, but in such a manner that an exact reproduction can be erected alongside of it when necessity requires. Twin plants are not new in the sand and gravel business, but their popularity seems to be increasing.

At the present time the entire country is suffering from one of the worst car shortages that has ever existed. Many retailers find their stocks depleted and are unable to meet the demands of their communities for building materials. Of course, the railroads are to blame, and they merit the condemnation they are now receiving. Shippers will do well, however, to render every assistance possible to relieve the present conditions by ordering their supplies as far in advance of their requirements as possible and by specifying in their orders "ship the maximum amount of any car available." Then again, when cars are received, the immediate unloading and releasing of the cars will help to relieve the condition confronting some other retailer who is being held up on shipments because of the absence of cars. As far as is possible every member of the building and road material fraternity should keep the stock rolling practically all the time. As this industry is a heavy user of freight cars, the united co-operation of every individual engaged in it would have a telling effect right now. Do your little part.

WITH YOU and ME

Roscoe Collins, Collins Bros., Penoke, Kan., is the Republican candidate for the House of Representatives.

A. B. Cory, formerly with the Western Brick Co., Danville, Ill., has joined the sales force of H. D. Conkey & Co., Mendota, Ill.

The Wisconsin Crushed Stone Association, which has had offices in the Collins block at Fond du Lac, Wis., since February last, has moved its offices to Milwaukee, Wis.

The Tuthill Building Material Co., of Chicago, opened its own common brick manufacturing establishment on Oct. 2. The yard is equipped with the latest and most improved brick-making machinery.

The Builders' Exchange of Louisville, Ky., has issued a new year book. The book contains a roster of reliable builders and material dealers, names and addresses of Louisville architects, copy of the Kentucky Lien Law and other useful information.

E. J. Davis, formerly superintendent of the Marengo Portland Cement Co., Caledonia, N. Y., has been appointed Superintendent of the Dominion Portland Cement Co., New Zealand. He left to take up his new position on Sept. 22.

The Charles Warner Co. has had its lime plant and quarry at Cedar Hollow, Pa., filmed by a moving picture concern, and early in the month presented the picture on the grounds of the Delaware State Fair. The pictures were shown in a tent.

The principal feature of Fire and Accident Prevention Day, Monday, Oct. 9, in Chicago, will be a joint observance by the City Club of Chicago, Illinois State Fire Prevention Association, Chicago Local Council No. 3 of National Safety Council and the Chicago Chapter of the National Fire Protection Association, at the City Club.

R. B. Gage, chemist of the New Jersey Geological Survey and state highway department, is going to make a survey of Atlantic County, N. J., to ascertain where sand and gravel suitable for concrete road work may be secured. Following this he will have an estimate made of the probable cost of a concrete road in Atlantic County.

A large delegation from the Detroit Builders' and Traders' Exchange visited the Flint, Mich., builders' exchange during August, making the trip over interurban tracks on a special car. Addresses were made by T. E. Beck, Chas. H. Bryan, W. A. C. Miller and Chas. A. Bowen of the Detroit Exchange. The Flint Exchange is only two years old and has over 100 members.

Harry A. Brocas, who has been chosen as the new president of the Buffalo (N. Y.) Builders' Supply Co., Inc., was formerly manager of the Dexter Portland Cement Co., with offices in New York. He was also New York City sales manager of the Lee Lime Co., of Lee, Mass. "The policy of our company is to give satisfaction and service to our customers and to maintain fair and equitable prices on all commodities handled by us," said Mr. Brocas.

The weekly luncheons of the Pittsburgh Builders' Exchange have again become a feature of that organization. The first luncheon was held on Thursday, Oct. 5. R. H. Towner, of the Towner Rating Bureau, of New York City, was the principal speaker, his topic being "Rates on Contractors' Bonds."

The Pittsburgh Builders' Exchange, under the management of Secretary E. M. Tate, is in the best shape that it has ever been at this season. The Exchange has a very large membership, which is constantly growing, and its luncheons in the Fulton building are well attended and full of interest for the members.

Owing to the rapidly increasing pulverizing business of the Lehigh Car Wheel & Axle Co., this firm has opened an office at 1336 McCormick building, Chicago, in charge of Harry C. Shields. The pleasing personality of Mr. Shields, together with the high esteem in which the company is held by the trade, is indicative of the fact that the latchstring, which was placed on the outside of the door on



HARRY C. SHIELDS.

Sept. 25, will be often used to gain admittance. The suite of offices are attractively finished in mahogany and, in equipping the several rooms, Mr. Shields has used exquisite taste in selecting the furnishings, with the result that absolute harmony prevails. Numerous books and pictures await the inspection of visitors and a fresh box of cigars is always on hand to help make the visits more enjoyable. The office will also be used as the western headquarters of the Fuller Engineering Co. and the Lehigh Stoker Co., both of which concerns will be represented by Mr. Shields. An office has also been opened in Pittsburgh under the management of J. H. Schuler with headquarters at 706 Farmers Bank Building.

Ferdinand Mumm, who has been manager of the Brillion, Wis., plant of the Union Lime Co., has been promoted to the position of superintendent of the Brillion, Grimms, Hayton, Marblehead, High Cliff and Hamilton plants of the Union Lime Co., the quarry plant of the Empire Lime and Stone Co. and the quarry of the Greenleaf Stone Co., at Greenleaf, all Wisconsin cities. Mr. Mumm earned his promotion through his splendid record as manager of the Brillion interests of the concern.

Clark Mandigo, assistant city engineer of Kansas City, has just tendered his resignation and accepted a position with the Portland Cement Association. Mr. Mandigo will be one of the engineers under J. B. Marcellus, division engineer in charge of the Kansas City office. In his letter of resignation Mr. Mandigo brought out again the uncertainty of a political position such as his was. The Kansas City Star, commenting editorially upon his letter, stressed the necessity of a more business-like method of filling the important positions in city government and management.

Col. N. E. Morgan, senior member of the Campbell & Morgan Cement Construction Co., Appleton, Wis., was stricken with paralysis Sept. 25. Mr. Morgan was at the plant of the concern at Appleton Junction early in the morning and apparently in the best of health. Shortly after eight o'clock he was found back of the office, paralyzed entirely on his left side. Colonel Morgan was conveyed to his home in an ambulance in a serious condition. Latest reports indicate that he will recover. Colonel Morgan is Democratic candidate for member of the state assembly.

The New York State Association of Builders has been invited to hold its convention in Buffalo, N. Y., near the end of next January or early in February. It is expected that the invitation sent by the Buffalo Builders' Exchange will be accepted. Prominent builders from all parts of the state will be present. The visitors will be entertained by the Buffalo Exchange. The entertainment will be elaborate, because at the same time the exchange will celebrate its fiftieth anniversary. G. S. Schierer, president, and Frank N. Farrar, secretary, and other members of the local exchange, are already making plans for the celebration.

The Jeffery Manufacturing Co., Columbus, Ohio, has opened an agency with the Gustin-Bacon Manufacturing Co., a large and old-established firm of Kansas City, in order to establish closer co-operation with customers in Kansas, Missouri and Oklahoma, and improve the service there. The Gustin-Bacon company will carry a line of Jeffery transmission machinery, chains, buckets, etc., in stock. J. S. Davidson, who has spent several years in the sales and engineering departments of the Jeffery company, has associated himself with the Kansas City firm and will handle all inquiries for Jeffery products. His experience and training in the application of these products will enable him to be of great assistance to customers in solving their problems in elevating, conveying and transmission machinery, also crushing, pulverizing and screening equipment.

The RETAILER

System of Accounts for Retail Dealers

Accounts and Their Explanations

(Continued from Sept. 7th Issue.)

The Sept. 7 issue of ROCK PRODUCTS AND BUILDING MATERIALS, under the above title, was printed a detailed description of the system of handling accounts by retail dealers as recommended by the Federal Trade Commission. Four books were mentioned as necessary for installing this system, namely, journal, general cash book, invoice book and ledger. The books were divided according to the various accounts. In the following paragraphs these accounts are explained:

Real Accounts.

1. CASH ON HAND AND IN BANK.

Charge this account with the total receipts of the month and credit it with the total disbursements as shown by the cash book. The balance should agree with the cash book balance.

2. NOTES RECEIVABLE—TRADE CUSTOMERS.

Charge this account with all notes, time drafts and acceptances held against others, and credit it with the same when paid or otherwise disposed of. The balance will show the uncollected notes receivable.

3. ACCOUNTS RECEIVABLE—TRADE CUSTOMERS.

Charge this account with the total of the charge tickets of the month, and credit it with the cash payments by customers (taken from the cash book at end of month) and with notes receivable, discounts, returns, and allowances (from the journal and credit slips). Balance of this account must agree with the sum of the balances of trade customers' accounts.

4. RESERVE FOR BAD DEBTS.

Credit this account with an estimated amount, based on charge sales, sufficient to provide for losses, and charge the account with the balances of personal accounts when hope of collection is abandoned.

5. PREPAID INSURANCE.

Charge this account with all insurance, fire, burglary, fidelity, plate glass, liability, etc. At the end of each month charge the proper accounts (Nos. 35 and 44) with their proportion, the balance being an asset as "Prepaid Insurance."

6. ACCRUED INTEREST RECEIVABLE.

Charge this account at the end of the period with all accrued interest (not yet paid) on notes, etc., due from others, crediting "Interest Account." When the interest is received it is credited to "Accrued Interest Receivable."

7. STORE PROPERTY.

Charge this account with the purchase price of the store property. Do not charge repairs to this account, unless they are in the nature of permanent improvements. A fair amount should be periodically credited to "Reserve for Depreciation."

8. WAREHOUSE PROPERTY.

Charge this account with the purchase price of the warehouse property. Do not charge repairs to this account, unless they are in the nature of permanent improvements. A fair amount should be periodically credited to "Reserve for Depreciation."

9. RESERVE FOR DEPRECIATION ON STORE AND WAREHOUSE.

Credit this account with the amount of depreciation on store and warehouse, and charge same to "Rent Income" (No. 44).

10. STORE EQUIPMENT.

Charge this account with the value of all equip-

ment such as counters, shelving, scales, measures, etc., used in the conduct of the business. A fair amount should be written off periodically for depreciation.

11. OFFICE EQUIPMENT.

Charge this account with office furniture, desks, safe and other office appliances (not included in 34). A fair amount should be written off periodically for depreciation.

12. DELIVERY EQUIPMENT.

Charge this account with the cost of automobiles, wagons, horses and harness. This account must not be charged with repairs to automobiles and wagons, horseshoeing or anything of this nature. A fair amount should be written off periodically for depreciation.

13. NOTES PAYABLE—TRADE CREDITORS

Credit this account with all notes given to trade creditors or time drafts accepted in their favor and charge the account as the same are paid. Balance of this account shows the amount of notes payable outstanding.

14. NOTES PAYABLE—BANKS.

Credit this account with all notes given to banks and charge the account as the same are paid.

15. ACCOUNTS PAYABLE—TRADE CREDITORS.

Credit this account with merchandise bought on account, the amount being carried to this account monthly from the total of the invoice book and charge it with all merchandise returned and reductions (journal), and payments made and discounts taken (cash book). Balance of this account must agree with the sum of the balances of trade creditors' accounts.

16. ACCOUNTS PAYABLE—OTHERS.

Credit this account with amounts owing to creditors other than trade creditors.

17. ACCRUED INTEREST PAYABLE.

Credit this account at the end of the period with interest accrued (not yet paid) on notes, etc., due others, charging "Interest Account." When the interest is paid it is charged to "Accrued Interest Payable."

18. ACCRUED SALARIES AND WAGES.

Credit this account with salaries and wages earned and unpaid at the end of each month and charge the

proper expense accounts. When payment is made this account is charged and closed out and the balance of the pay-roll charged in the regular way.

19. ACCRUED TAXES.

Credit this account with the taxes due up to the end of each month, charging the proportionate amounts to the accounts in which they belong. When the taxes are paid this account will be charged.

20. PROPRIETOR'S DRAWING ACCOUNT.

Charge this account with all withdrawals of cash (not salary). At the end of the period the amount of this account is closed into proprietor's capital account.

21. MORTGAGES PAYABLE.

When a mortgage is placed upon real estate (or assumed at the time of purchase) this account is credited. When paid it is charged.

22. PROPRIETOR'S CAPITAL ACCOUNT.

This account represents the proprietor's net capital. At the end of the period the net profit is credited to this account. The amount of his drawing account is then closed into this account. The balance of the account is his net capital at time of closing.

In the event of a partnership each partner's net capital would be shown in his respective account and the net profit (or loss) carried to the credit (or debit) of their accounts in agreed proportions. In the event of a corporation this account represents the amount of the issued capital stock and the profit or loss is carried to "Surplus" account.

23. SALES.

Credit this account with the total sales of all merchandise, the charged sales being taken from the total of the charge tickets for the month and the cash sales from the "Cash Sales" column in the Cash Book. Returns should be charged at selling price for all merchandise returned by customers whether for cash or credit. The difference in this account will be the net sales which is transferred to the credit of "Trading Account."

24. SALES ALLOWANCES.

Charge this account with any allowance given a customer not contemplated when sale was made. Allowances should not be charged to "Sales," but closed at the end of the period into "Trading Account."

25. MERCHANDISE PURCHASES.

Charge this account with the face of the invoices of merchandise before deducting cash discounts.

MONTHLY SUMMARY OF BUSINESS, 1916.

	Net Sales.			Buying expense.		Selling expense.			Delivery expense.		General expense.								Total Expense.	Per cent of Net Sales.
	Credit.	Cash.	Total.	Salaries and Wages of Buying Force.	Miscellaneous Buying Expense.	Salaries and Wages of Sales Force.	Advertising.	Miscellaneous Selling Expense.	Salaries and Wages of Delivery Force.	Miscellaneous Delivery Expense.	Management and Office Salaries.	Office Supplies and Expense.	Insurance on Stock and Store Equipment.	Taxes on Stock and Store Equipment.	Losses from Bad Debts.	Miscellaneous General Expense.	Rent.			
Jan.....	\$3,350.31	\$1,301.05	\$4,651.36	\$25.00	\$14.00	\$177.33	\$30.00	\$2.75	\$102.67	\$6.08	\$296.00	\$23.00	\$1.61	\$2.00	\$23.86	\$26.70	\$71.25	\$797.57	18.9	
Feb.....																				
Mar.....																				
Apr.....																				
May.....																				
June.....																				
July.....																				
Aug.....																				
Sept.....																				
Oct.....																				
Nov.....																				
Dec.....																				
Total,																				
Per cent of Net Sales.																				

Form A.

A Manufacturers' Association That Helps Dealers

By the Publicity Bureau of the Associated Metal Lath Manufacturers.

This is an age of co-operation: Business men are beginning to realize that their competitors are human and even may be rather likeable chaps.

The building material dealers throughout the country are awakening to the value of organization and co-operation. They are finding that it pays to work with a competitor rather than against him.

One of the greatest troubles of any retailer is not his honest competitor, but the one who, through ignorance of true salesmanship, believes the best way to sell goods is to cut the price.

Any organization that helps to standardize and stabilize markets so that there is a fair profit to the manufacturer, the jobber and the retail dealer, is doing a public service to business in general.

There is probably no line of business where the advantage of standardization is of greater value to the retail dealer than that of building supplies. Here is a line of materials to be sold to the contractor usually because they are specified by the architect and sometimes by the owner.

The aim of the Associated Metal Lath Manufacturers is to standardize the manufacture, use and sale of metal lath, so that the architect may know what to specify for every type of work, the contractor may know what he must figure on, and the dealer will know what material to carry in stock.

The determining of standards for any building material can only be accomplished by scientific and practical experiments. These are costly and could hardly be done by an individual manufacturer, but can be accomplished by associated effort of all the manufacturers in a certain line.

The Associated Metal Lath Manufacturers have carried out fire tests in the East and West to determine the value of metal lath construction, in comparison with other materials for the same purpose. These tests gave to architects and builders information of vital interest to the people of this country which could not have been otherwise obtained.

An officer of the association is constantly in touch with all developments in the revision or adoption of building codes, not only to see that the proper recognition is given metal lath, but to furnish city officials with scientific and practical data to substantiate all claims.

Standard construction specifications for the use of metal lath have been conscientiously formulated.

This association was an important influence in securing the establishment by the U. S. Government of the Bureau of Standards at Washington, D. C. Elaborate tests of stucco and metal lath are now being made by this bureau, and its progress report will soon be published.

Tests for soundproofing partitions and walls are now being made at one of the great universities for this association.

The Associated Metal Lath Manufacturers have decided to spend thousands of dollars with the Underwriters' Laboratories in Chicago, so that metal lath construction may be given a final inspection and indorsement by the leading authority on fire-resisting construction.

All of this is of great indirect value to the dealer, but the matter of stabilizing prices is of more direct interest.

In reviewing their work a little over a year ago, the Associated Metal Lath Manufacturers saw that, while they were accomplishing a wonderful amount of good for the metal lath industry, the vital need was to have immediate and reliable information regarding the prices quoted on metal lath. Yet this must be accomplished without any agreements fixing prices.

The open price plan was adopted. Each and every

member of the Associated Metal Lath Manufacturers notifies the office of the association of any change in his quotations and these are promptly bulletined to the other members. In this way, as through a "board of trade" or "stock exchange," every manufacturer knows what the current prices for metal lath are. There are absolutely no agreements on the prices of lath, no restrictions on sales or allotment of territory.

This simple, fair and right exchange of true market information has cured the cancer of distrust, promoted intelligent competition and put the metal lath industry on its feet.

The market information exchanged by these manufacturers consists of the prices quoted their distributors or jobbers, but as those individuals resell to dealers and contractors, naturally only one-half of the market information may be secured in this way with any dispatch.

To provide for promptly reporting the fluctuating prices in the larger cities between jobber, dealer and consumer it became necessary to organize "local associations" in the important cities.

These local associations enroll the branch houses, representatives and jobbers directly representing the manufacturer.

These local organizations exchange with each other, through their local director's office, all prices which they quote on metal lath, as well as a weekly sales report which gives all details of sales excepting the buyer's name. This enables each member to see if he is getting his share of business at fair average prices.

A good salesman has pride in his product and will get the market, or better, for his goods if he knows what the market is. With this system he does know.

These "local reports" are dispatched to the office of the association and promptly relayed to each manufacturer.

This means that any and all manufacturers not represented in such centers, but who may have a call from a buyer in that market, will know what prevailing prices in that market obtain at that moment and thus such bids are intelligently made.

This permits and develops high-grade salesmanship, but in no way fixes prices. Any and all sellers are privileged to quote any prices they may desire, but the confirmed dyed-in-the-wool "price cutter" will either reform, under this publicity, or his manufacturer will see that he has an "order taker" and not a salesman.

Contractors submitting competitive bids for construction work are directly benefited by this plan, which eliminates secret prices and unfair rebates.

The results of this plan are now beginning to be seen nationally and are meeting the approval of the dealer, who is willing to play fair with the purchaser, compete honestly with other dealers and make a fair profit on his sales.

It is believed that the Associated Metal Lath Manufacturers is the first association to carry this broad-gauge, modern business, co-operative plan down through all the stages of distribution for metal lath to the acknowledged benefit of all concerned from manufacturer to consumer.

The plan builds business, refines business men and, strange as it may seem, delivers an improved product to the consumer at no advanced or unwarranted prices.

R. U. Wicker has succeeded E. W. Rosworm as manager of the Burgner-Bowman yard at Lincoln, Kan.

CONKEY CHANGES FIRM NAME.

H. D. Conkey, who for years has been engaged in the sand and gravel, coal and general building material business at Mendota, Ill., under the names of H. D. Conkey Coal Co. and H. D. Conkey Sand & Gravel Co., has consolidated the various departments under the name of H. D. Conkey & Co. Commenting on the change, he says:

Under this name we will continue to do a wholesale business in coal, sand and gravel, brick, hollow tile, mortar color, concrete reinforcing materials and builders' specialties.

The change in name has been deemed advisable in order that there may be no possibility of confusion as to our various business activities and also because of the fact that our building material department has been greatly strengthened and we do not wish the trade to feel that it is in any sense a side line, sold in connection with the product of our gravel washing plants.

Except with the addition of A. B. Cory to our sales department, there are no changes whatever in the ownership, management, or sales organization of our company. It will always be our most earnest endeavor to supply quality goods, backed by a willingness to give service, and honest, straightforward business methods in every transaction.

BELIEVES FIRMLY IN AUTO TRUCKS.

Through the installation of a motor truck last winter, Raymond Wilcox, president of the Wilcox Co., 3690 Milwaukee avenue, Chicago, learned of the practical economy and ever-ready service possible through motor haulage. At the Milwaukee avenue yard, as well as at two other yards, the Wilcox Co. retails sand, gravel, cement and a full line of building materials in conjunction with coal. Since February they have put in five more trucks. The machines are equipped with automatic power hoists. Of his experience Mr. Wilcox says:

The work of our first motor truck, bought last February, showed such remarkable results that we speedily ordered five others. They have so changed the complexion of our delivery problem that we believe our sixty-odd horses will soon be entirely displaced by these more efficient machines.

BREVITIES OF THE RETAIL TRADE.

The Mill City Lime and Cement Co. has been appointed exclusive distributors in Minneapolis, Minn., of Trus-Con laboratory products, consisting of waterproofing, damp-proofing and technical paints. The Mill City Lime and Cement Co. carries a complete stock of these materials in its Minneapolis warehouse.

The firm of Kinne & Yetter, building material and coal dealers of Penn Yan, N. Y., has dissolved. The business has been taken over by Remsen M. Kinne, heretofore one of the partners.

The Suburban Builders' Supply Co., New Rochelle, N. Y., has filed schedules in bankruptcy proceedings, showing liabilities of \$7,922 and assets of \$18,840, consisting of notes \$1,041, stock \$1,968 and accounts \$15,831.

The Houston Brothers Co., Pittsburgh, Pa., has been unusually busy most of the time this fall in all lines. Its new south side distributing yard near the Lake Erie railroad freight terminal is the means of its getting a big lot of business over and through the South Hills.

NEW BUILDING MATERIAL INCORPORATIONS.

The Wisconsin Building Material Co., Schofield, Wis.; capital, \$25,000; incorporators, A. J. Kreutzer, M. P. McCullough and R. E. Puchner; a wholesale and retail business in building supplies will be carried on.

The National Press Co., Massillon, Ohio; capital, \$1,000,000; incorporators, C. E. Stuart, I. M. Taggart, F. G. Griffith and others; will manufacture a full line of metal lumber, as well as other steel products. They propose to build a plant near Massillon which will employ about 150 men. Construction will begin at once.

Brown Lumber & Coal Co., Mondamin, Ia.; capital, \$30,000.

Retailers' Association News

James H. Allen, President, National Builders' Supply Association, Lincoln, Neb.
 Charles M. Kelly, President, New England Builders' Supply Association, Providence, R. I.
 Frank H. Genung, President, Mason Material Dealers' Association of New Jersey, Newark, N. J.
 W. O. Holst, President, Ohio Builders' Supply Association, Toledo, O.
 B. L. Grove, President, Del-Mar-Col Builders' Material Dealers' Association, Washington, D. C.
 H. E. Shadle, President, West Virginia Lumber and Builders' Supply Dealers' Association.
 George Erich, President, Eastern Pennsylvania Building Material Dealers' Association, Allentown, Pa.
 John F. Dinkel, President, Building Material Dealers' Association of Westchester County, N. Y., Tarrytown, N. Y.
 Edwin Schmidt, President, Long Island Coal & Building Material Dealers' Association, Mineola, N. Y.
 B. J. Mitchell, President, New York State Builders' Supply Dealers' Association, Niagara Falls, N. Y.

Get in Line and Push For Progress

In Ohio the dealers are doing things with the organization movement that the Ohio Builders' Supply Association is campaigning in every shipping and delivery district of the state. A systematic plan of practical commercial adjustments through the co-operation of all of the factors in each local district has been adopted. This is promptly recognized and accepted by those who do not care longer to conduct business without profit to the end that those irregularities impossible to reach in any other way are promptly solved. It is no burst of temporary enthusiasm quickly to vanish after a brief splash, but the earnest and progressive assumption of a position in the business world on the part of the dealers commanding first their own self-respect and after that full recognition and consideration of all other trade interests. For years there has been a clashing of conflicting policies with regard to the position of the dealer. He has scarcely been able to recognize or define himself in the business community in which he operates. He has been made to absorb the shocks of trade and industrial battles in which he could only carry the banner without hope of profit, and usually without any support from his own side of the fight.

One first and shining principle has been clearly defined so that it is now fully understood, and accordingly adopted. Commercial fighting, reckless price-cutting in competition and making deliveries at a loss are a thing of the past, in so far as the dealers in builders' supplies in Ohio are concerned. If anybody, big or little, either within or without the state, ever again becomes insane enough to start a trade war, he will be cordially allowed to do it all alone, without any costly resistance or more expensive support of one side of a controversy. All matters of difference of opinion have simply got to be worked out in the very locality where such a thing becomes apparent in the presence of all the factors concerned, so as to be thoroughly understood by all, and consequently satisfactory to all.

Trade wars are very, very costly. There is no fancy margin in the builders' supply business with which to indulge in such wanton follies. Whoever makes the mistake of thinking differently in this regard soon passes out of the industry, for he is better fitted for other lines not so prosaic as handling and hauling maximum tons with minimum dollars as the perpetual and indispensable equation that balances profits and losses. So far as the Ohio dealers are concerned there will never more be thousands of dollars spent and lost in keeping up anybody's trade war. It is cheaper to spend a few dollars to support the co-operative association, which is always in a position to iron out all the technical and other inaccuracies in a sensible and human brotherly way without cost.

The result of this new era now reaching into all parts of the great state of Ohio can already be com-

puted with absolute certainty, provided the members in each district regularly attend their monthly meetings, and continue to tell the simple truth without reservation as now established. Every retail dealer in the state will make a profit commensurate with his tonnage and volume of business. Being protected by all other dealers, equitable service charges can be maintained, so that a higher type of honesty can prevail, which, founded upon plain facts, can be understood and proves satisfactory to contractors and all other kinds of consumers alike. False trade information cannot survive any longer, so that commercial trickery is effectually eliminated, and the heavy cost of misrepresentations goes with it. Better credits and better understandings between buyer and seller means a clear and straight path for the manufacturers to use in disposing of their products with the minimum of friction and delay. The new era is that live-and-let-live policy that Dr. Franklin advocated all his life until he got it written into that wonderful document known as The Constitution of the United States. Long before that the greatest Teacher of all time lectured at length upon the same principles in the masterpiece of all the classics, which we commonly call "The Sermon on the Mount." So there is nothing new in principle about this new era. It is the civilized way, and every change or modification of simple truth and reasonable justice only introduces so much of barbarism in business, which never got anybody either satisfaction or profit, and never will or can.

There has been already plenty of fight, and enough money wasted in contentions to pay gratifying dividends to all who have regularly missed such reasonable compensation for capital and efforts in the builders' supply business. It is high time that the barbarians get put out, so that well-ordered practices can be established permanently to govern the distribution and delivery of such staples as cement, lime, plaster, hollow tile, sewer pipe and brick.

It was at the summer meeting of the Ohio Builders' Supply Association in July that the engagement of H. S. Groins, an experienced and qualified association worker, in the capacity of assistant to the president, brought about the preliminary survey that resulted in the launching of the new era.

Since that time the state of Ohio has been divided into thirty-three districts. Each of these is bounded

by the lines of equal freight tariffs and proximity of the competing firms to a convenient center for holding monthly meetings. One meeting has been held in each of the districts, and second and third meetings are being held in those districts first organized. The meetings are very different in procedure to the ordinary imitation of parliamentary practice that has wasted so much time in the past at meetings called for a similar purpose. It is a simple roll call in which each member is asked to tell all the conditions of trade, particularly with reference to competition, that he has been able to observe since last meeting. Just as soon as the first member opens his mouth the interest begins. Somebody present finds out what another thinks of him. He can explain sometimes to the satisfaction of all, or after discussion he finds out what he has got to do in the future if he expects to keep up with the procession. Since everybody present is handling his tonnage for the sake of gaining a livelihood, it is not hard to convince any man of sense that there is no use in wasting money or effort, when every one of his competitors thinks he is foolish for doing it. Nobody can afford to be absent at any of these meetings, for his own operations are sure to be discussed as it appears to others. He wants to keep himself in the clear as well as to see that everybody else does the same thing. These district meetings actually give the dealers that opportunity which the immortal Burns prayed for in his much quoted verses, "O wad to God the giftie gie us, to see oursels as others see us," etc. No one can estimate the wholesome value of that mirror-like feature of the meeting that makes every man see himself as his competitors see him. Since all men are only boys who have experienced a little more trouble, the meetings always break up at a late hour with expressions of good fellowship and mutual regard, because a big drink of the mental nectar that always lifts man up has been plentifully supplied—truth, the sovereign medicine for every commercial distemper.

Mr. Gaines has opened a permanent office in the Columbus Savings and Trust Building at Columbus in order that the rapidly growing correspondence can be handled promptly and efficiently. Legal advice has been provided for the purpose of giving the best possible answer promptly to the many questions that come up with regard to interpretations of bonds, road laws, lien laws, freight decisions of the Interstate Commerce Commission, and other matters of that kind which frequently perplex the members. The practical service of the Columbus office alone is worth a great deal more to any dealer than the cost of a membership. Mr. Gaines devotes all of his time to attending the district meetings in so far as this is

(Continued on page 32.)

TERRE HAUTE DISTRICT ORGANIZED.

A new district for the Indiana division was formed in the territory contingent to Terre Haute on Sept. 20.

Field Secretary W. Sheehy, who is in charge of the Indiana work, called the meeting to order and all of the dealers in Terre Haute were found present.

The work was completely outlined, and all of the details surrounding the plan of organization of the National Builders' Supply Association were given and was found to be of decided interest to all those at the meeting.

The following concerns became the charter members of this district:

Reiman Lime & Cement Co.
 Pierson Brothers.
 Acme Coal & Lime Co.
 Bray Brothers.
 Raymond Kintz Lumber Co.
 August Fromme.

The territory assigned to this district comprises the counties of Sullivan, Greene, Vigo, Clay, Parke and Vermilion, all of which is situated so as to make Terre Haute and other centers very accessible. Arrangements are now being made for another meeting in the near future, at which time the dealers in this district will be invited to attend.

SCHEDULED SHOWS AND MEETINGS.

Feb. 7-15, 1917—Tenth Chicago Cement Show, Coliseum and Annex, Chicago, Ill.

Feb. 12-13, 1917—National Builders' Supply Association, annual convention, Hotel Sherman, Chicago.

Feb. 14-16, 1917—Illinois Lumber & Builders' Supply Dealers' Association, annual meeting, Hotel Sherman, Chicago.

N. B. S. A. CONVENTION FEB. 12-13.

Monday and Tuesday, February 12 and 13, have been selected as the days for holding the eighteenth annual convention of the National Builders' Supply Association, with headquarters at the Hotel Sherman, Chicago.

These dates fall within the period that the tenth annual Chicago Cement Show will be held in Chicago and were selected with the object in view of giving an opportunity to retailers of the country to visit Chicago for their annual convention and to visit the show at the same time.

WEST VIRGINIA CHOOSES CHARLESTON.

Charleston has been chosen as the place for holding the next annual meeting of the West Virginia Lumber & Builders' Supply Dealers' Association. The officers have planned to hold the convention during the second week of February.

ILLINOIS RETAILERS TO MEET FEB. 14-16.

The next annual meeting of the Illinois Lumber & Builders' Supply Dealers' Association will be held at the Hotel Sherman, Chicago, on Feb. 14, 15 and 16.

DEL-MAR-COL TO INVESTIGATE COSTS.

The regular quarterly meeting of the Del-Mar-Col Building Material Dealers' Association held at the Hotel Rennert, Baltimore, Md., recently, resulted in a progressive movement being started for the investigation of costs of conducting a building material business, the information to be gathered and tabulated in such form, as to give the association members an intelligent idea of the range of costs, under the various conditions that obtain in the building material mercantile industry. It was agreed in the conduct of this investigation, that the executive committee of the association prepare such questions, as they may deem necessary to provide the information on business costs, which are to be sent to the active membership for their full and active replies. This data will then be compiled to show the varying costs and through such reliable information there is no doubt of the benefit that will be derived by the average dealer in a better understanding of his real costs of doing business.

In connection with this important movement of the association, President B. L. Grove urged the members to write him fully on the costs of doing business in their localities, such trade information to be forwarded to ROCK PRODUCTS AND BUILDING MATERIALS who had offered to assist dealers through the publication of such matter.

The question of a paid secretary came up next, whose duties would consist largely of the work of increasing the membership of the association. The matter was finally left to the executive committee to decide. It was also proposed that monthly meetings of the association be held, and the advisability of which was referred to the executive committee for report at the next meeting.

President Grove announced with deep regret the death of Mr. Link of the Hudson Cement and Supply Co. and on motion of H. W. Classen, the secretary was directed to draft an appropriate memorial to be forwarded to Mr. Link's business associates.

The meeting was well attended, and the usual interesting and helpful discussion of the several problems before the association was indicative of the practical value coming from the association's work.

President Grove's report stated the condition of the association and referred to the benefits through genuine co-operation. The results already secured and those in anticipation account for the good attendance at the quarterly gatherings, and the real interest that is manifested by the members in the several lines of work assigned to them.

DEALERS DISCUSS CHECKING UP OF CONTRACTS.

Local Committee No. 2 of the Indiana Division of the National Builders' Supply Association held its regular monthly meeting on Thursday, Sept. 21, at Fort Wayne, Ind., and discussed the system of checking up contract work by cement companies. Suggestions were made that the checking up of contracts should be more exacting, because in some instances some of the manufacturers have been found to be rather lax in that they apparently permit the padding of contracts. This, the dealers felt, was an injustice to other dealers as well as to other cement manufacturers.

They also discussed the inclination on the part of some manufacturers to get illegitimate dealers to put in a full line of building materials so as to comply with the by-laws of the National Builders' Supply Association, which necessitate a dealer carrying as complete a line of building materials as demanded by his community. It was the idea of the dealers to discourage efforts on the part of manufacturers along this line of creating new dealers.

The members in attendance were:

New Haven Lumber Co., New Haven, Ind.
Kirsch-Sellemeyer & Sons, Decatur, Ind.
Spangler-Gruehoff, Churubusco, Ind.
No. Manchester Lumber Co., No. Manchester, Ind.
Berne Lumber Co., Berne, Ind.
B. O. Jones, Geneva, Ind.
A. Wasmuth & Sons, Roanoke, Ind.
Studebaker Grain & Seed Co., Bluffton, Ind.
Home Lumber Co., Huntington, Ind.
Wm. Moellerling & Sons, Ft. Wayne, Ind.
Joel-Schultz Co., Ft. Wayne, Ind.
Ft. Wayne Builders' Supply Co., Ft. Wayne, Ind.
Fishack-Ellewood Co., Ft. Wayne, Ind.
E. M. Baltes & Co., Ft. Wayne, Ind.
Elastic Plaster & Coal Co., New Haven, Ind.
L. C. Kelly, Peerless Portland Cement Co.
Ray Fish, Sandusky Portland Cement Co.
C. R. Brigham, Atlas Portland Cement Co.
Mr. Cahenla, Atlas Portland Cement Co.
Harry Fishack, American Cement Plaster Co.

NORTHWEST WISCONSIN DEALERS MEET.

The members of the Northwestern Lumbermen's Club of Wisconsin met in Spooner on Wednesday, September 27, and had a very splendid meeting.

This club comprises practically the same territory that district No. 6 of the National Builders' Supply Association does. Mr. Beckwith, who is chairman of the district, is also vice president of the club. Upon his invitation, Secretary Desmond attended the meeting.

The morning session was devoted to the club exclusively, and at its conclusion, everybody adjourned to the dining room where a splendid repast was awaiting the hungry crowd. D. E. Kiser of the Kiser Lumber Co., at Cameron, Wis., presided at the meeting, and at the conclusion of dinner he called upon several of the guests to give little talks.

Among those called upon was His Honor, the mayor of Spooner, who in a few well chosen words welcomed the visitors to the city and expressed himself as well pleased with the evidence of co-operation which was being displayed. He made the remark that he considered a failure a very poor advertisement for any city and he thought that co-operation was one legitimate means of aiding in their prevention.

Adolph Pfund, secretary of the Wisconsin Retail Lumber Dealers' Association, was also called upon, as were A. J. Whipple, of the Marquette Cement Manufacturing Co., and Mr. Desmond.

At the finish of the dinner they adjourned to the meeting hall, where District No. 6 of the National Association had its gathering. The meeting was presided over by Mr. Beckwith, chairman, and Mr. Miller, of Cumberland, Wis., secretary.

It proved to be a very interesting session and during its deliberations, talks were given by Mr. Desmond and Mr. Coates of the National Builders' Supply Association, Mr. Pfund, of the Lumbermen's, and Mr. Whipple, of the Marquette Cement Manufacturing Co.

WISCONSIN DIVISION TO HEAR LECTURES ON COSTS.

Arrangements are now very nearly completed whereby A. H. Melville, of the University of Wisconsin, will make a tour of all the districts in the Wisconsin division the latter part of this month.

Mr. Melville is in charge of the extension division of the university and has been working for some time past on a cost finding system for the building supply business.

The dealers in the Wisconsin division have voiced their approval of immediate steps being taken to work out some suitable plan whereby a simple, elastic, uniform cost finding system can be adopted for their business. They realize that it will be the biggest asset to their business, and furthermore that until such a time as they do equip themselves with it, they are not in the class of the high-grade merchant.

It is expected that the dates for the various meetings will be settled within a week, and it is then the intention of Secretary Desmond to use every effort that can be commanded to bring out a 100 per cent attendance at the proposed sessions. The various chairmen have assured him that they will do everything possible to co-operate to this extent, and it is the opinion of those who know the importance of the subject to be discussed, that these meetings will prove the most interesting and profitable of the whole year's work.

INDIANA DISTRICT NO. 3 MEETS.

The regular meeting of District No. 3, Indiana division, of the National Builders' Supply Association, was held in the Bucklen Hotel, Elkhart, on Wednesday evening, Sept. 27.

Chairman Hildebrand, in reporting the doings, advises that they had a dandy meeting and firmly believes that it will be of immense benefit to all, and especially the Elkhart dealers.

B. A. Thrift, district sales manager of the Universal Portland Cement Co., was present and was introduced by the chairman as the "silver tongued orator." The remarks which were made by this very popular salesman of the Universal company were received with much enthusiasm and he was well rewarded with the applause that was given.

Mr. Cress, field man of the insurance department of the National, was also present and explained the methods of insurance as applied to the builders' supply business.

The regular feature, which one can always expect at a meeting of District No. 3 was also present on this occasion in the form of the Elkhart band, which played for quite awhile outside of the hotel, the serenade having been especially arranged by the Elkhart dealers. Those in attendance were as follows:

A. H. Herzog, Herzog & Anderson, Mishawaka, Ind.
F. M. Case, Frank Lumber Co., Mishawaka, Ind.
I. W. Jackson, Builders' Supply & Specialty Co., South Bend, Ind.
D. H. Herbster, Isbel Lumber & Coal Co., Elkhart, Ind.
J. A. Herbster, Claypool Lumber & Coal Co., Claypool, Ind.
Geo. P. Godfrey, B. C. Godfrey & Sons, Elkhart, Ind.
R. W. Monger, Monger Lumber & Coal Co., Elkhart, Ind.
Timothy H. Holdeman, Brusman & Holdeman, Elkhart, Ind.
Wm. H. Brusman, Brusman & Holdeman, Elkhart, Ind.
M. Heuman, Peninsular Portland Cement Co., Jackson, Mich.
John R. Cress, Central Manufacturers' Mutual Insurance Co., Van Wert, Ohio. Chicago branch.
C. H. Defrees, South Bend, Ind.
Walter M. Hildebrand, Staples-Hildebrand Co., South Bend, Ind.
M. A. Burns, Universal Portland Cement Co., Chicago, Ill.
Guy D. Staples, Staples-Hildebrand Co., South Bend, Ind.
B. A. Thrift, Universal Portland Cement Co., Chicago, Ill.
A. E. Eberly, Mentone Lumber Co., Mentone, Ind.
L. C. Kelley, Peerless Portland Cement Co., Elkhart, Ind.
H. C. Lontz, S. C. Lontz & Sons, South Bend, Ind.
Ira Kauffman, Consumers' Coal & Supply Co., Elkhart, Ind.
E. Newland, Builders' Supply & Specialty Co., South Bend, Ind.
W. R. Bard, Monger Lumber & Coal Co., Elkhart, Ind.
Vernon Lowe, Lowe Bros. Lumber Co., Mishawaka, Ind.
Otto Griewauk, Griewauk Bros., LaPorte, Ind.
Frank H. Foe, Bourbon Lumber & Coal Co., Bourbon, Ind.
Lewis Mason, Ltna Green Lumber & Manufacturing Co., Etna Green, Ind.

NEWS of the TRADE

REPORT OF CROP CONDITIONS.

A summary of the crop conditions for the week ending Sept. 30 as observed by the traveling salesmen of the American Steel & Wire Co. and compiled by F. Baackes, vice-president and general sales agent of the company, says:

"The damage by frost was not as great as was at first anticipated, most of the damage resulting only in low places. Weather has improved conditions for fall plowing and getting ready for winter wheat seeding. In spite of the fact that farmers have paid a high price for the experience, not all of them have yet learned that wheat seeding should be delayed as late as possible if they expect to escape Hessian fly damage.

"All reports indicate that while the corn crop will be somewhat short, the quality is good.

"Livestock and hogs are short. Dairying conditions are improving, due to a good fall pasture, resulting from recent rains.

"The tobacco crop is good and practically made. The cotton crop is fairly good. Cotton is bringing high prices. Crops of fruits, especially apples, are about 50 per cent.

ROAD WORK KEEPS BOSTON ACTIVE.

Boston, Mass., Oct. 3.—Retailers delivered more material on road jobs the past month than in some time. Road and street contractors in the city and state have had a very full season and are still busy.

Retailers are satisfied with prices and, where possible, maintain their stocks against the fluctuating conditions in transportation and the labor market. Dearth of quarry labor is making more trouble than the usual fall car shortage. This is especially true in regard to lime. The quarries at Cheshire, Mass., imported 100 negro laborers in midsummer, but only ten or fifteen of them stayed after working a short time. As a consequence the firm reports that it is 125 to 150 cars behind in its shipments of finishing lime.

While the building supply houses of Boston, Worcester, Springfield and other New England cities have been generally busy during this season, things are now dropping down a little with the approach of winter. The record of contracts awarded for the year, compiled by the F. W. Dodge Co., show New England nearly \$22,000,000 ahead of last year and \$10,000,000 ahead of the banner year of 1912. Building operations, it is anticipated, will continue on their present scale until late in the year, according to James C. Lincoln of Waldo Bros., Inc.

BUFFALO FALL TRADE BRISK.

Buffalo, N. Y., Oct. 5.—Buffalo firms engaged in the building supply business had a satisfactory volume of trade in September. The month started slowly, but braced up splendidly about Sept. 15. The work shown in the local architects' offices and what is being figured on by contractors here mean excellent conditions in the brick, cement, plaster, sand and other lines for the remainder of the year.

"Conditions in the builders' supply business in Buffalo are improving and prices are better," said Henry Schaefer, Jr., vice president of the western division of the New York State Builders' Supply Association. "A large volume of business is reported in all lines."

EASTERN PRODUCERS UNABLE TO SUPPLY DEMAND.

New York, Oct. 5.—With the fear of a general sympathetic strike in the building trades to help the street-car strikers "knocked into a cocked hat," builders and supply men are breathing easier. For more than two weeks there was genuine fear that labor unions in general would order a walkout as a sympathy demonstration favorable to the street-car men, but the executive council of the United Boards of Business Agents decided not to order the unions out. As the longshoremen and other union men having to do with the distribution of building materials are all working and apparently intend to forget the sympathy and remember the "full dinner pail," building material people will have a free hand to wrestle with the labor problem at the producing end.

Cement, lime, brick and plaster men all reported restricted production, in some cases as low as only forty per cent of capacity being produced the past ten days. Labor is scarce and laborers mighty independent, despite good wages. "Business really wants to be good," said one man, "but fate won't let it." Demand is taking nearly all materials as

Not alone is labor causing trouble in producing centers. Construction work is hampered by much the same condition, even though as high as three dollars is being paid for eight hours. Common laborers at three dollars a day is "going some," to use a common phrase.

The Presidential campaign is having little effect on the building situation, neither side of the strike troubles being inclined to talk politics.

A serious car shortage is expected, and right soon, and building materials men have been placing big orders in some instances in an effort to stock up before trouble arrives.

But placing orders is one thing, and having them filled promptly is quite another.

CHICAGO DEMAND AGAIN ACTIVE.

The demand for building materials in the city of Chicago, which suffered slightly during the last two months of summer, is again active. Reports from retailers are to the effect that building took a spurt about September 15, and from present indications there will be plenty of activity in this line for at least another month.

While there were sixty-seven fewer permits issued during the month of September than during the same month a year ago the valuation of the buildings for which these permits were granted exceeds the figures of a year ago by \$10,000. In September there were issued 910 permits at a valuation of \$8,579,550 as against 977 permits and a valuation of \$8,569,600 in September, 1915.

MEMPHIS BUILDING SHOWS GAIN.

Memphis, Tenn., Oct. 5.—Building Inspector Dan C. Newton's report shows good autumn building. September permits are \$30,150 above September last year, the figures being \$239,685, against \$209,535, respectively. Number of permits show slight falling off, 174 against 212 in September, 1915. The same records for the first nine months of the year show an increase of \$100,042 over corresponding period last year.

STRONG DEMAND IN LOWELL, MASS.

Lowell, Mass., Oct. 4.—Commenting on the local condition of the building material market, E. A. Wilson, of E. A. Wilson & Co., says:

"We believe there is a very strong demand in this section for building materials of all kinds, particularly cement. We are building a concrete bridge across the Merrimack river, two mercantile buildings of considerable size, a number of small theaters and a goodly number of dwelling houses.

"The labor situation has no doubt curtailed building projects somewhat, as I presume it has everywhere. Every man that wants work can find a job, and, generally speaking, business seems to be good in all lines. Many of our mills are working overtime, which indicates that additional buildings are needed. In fact, some of them are already in process of construction."

WEATHER AIDS CINCINNATI DEALERS.

Cincinnati, Ohio, Oct. 5.—The fine weather and improved conditions in other respects noted during the beginning of the current month and the latter part of September have helped building activity considerably, and indications are that the fall season will see more work started than the latter part of the summer. There is still a marked scarcity of labor, which has had its effect all along, but prospective builders have come to the conclusion that it is useless to postpone work in the hope of lower material prices and more plentiful labor.

The new Building Material Exchange of the Cincinnati Chamber of Commerce has got under way with a good-sized membership and prospects of becoming one of the most active and influential bodies of the chamber. At a recent meeting F. H. Kinney, secretary of the Hyde Park Supply Co., and a leading member of the material trade, was a speaker, emphatically endorsing the organization idea, and declaring that the material trade is one of the worst organized in Ohio, not to mention other states. Regular meetings are to be held, and it is believed that every dealer in building materials in the city will be brought into the association.

The Shorey-Willis Brick and Supply Co., which has for some time occupied new and comfortable quarters in the Union Savings Bank and Trust Co. building, moving from the Second National to a point nearer to the heart of the city, reports a fair volume of business in all lines, with prospects for the remainder of the fall excellent.

The Pursell-Grand Co. has been handling a fair business lately, getting an excellent share of the large amount of residence, store and other comparatively small work which is going on. There are several larger jobs in prospect besides, on which this company, as well as others, is figuring and lettings in the near future will go far toward determining the volume of the year's business, which is already very good.

The Cincinnati Clay Products and Supply Co. is preparing for continuous deliveries on the Hyde Park school job, on which the Ferro-Concrete Construction Co., the general contractor, has made great progress. The framework of concrete and steel is about ready to receive the brick on several of the buildings of the group, and the material company will be able to deliver the brick in carloads on the side track at the site.

25 Men Saved in the Operation of This Plant

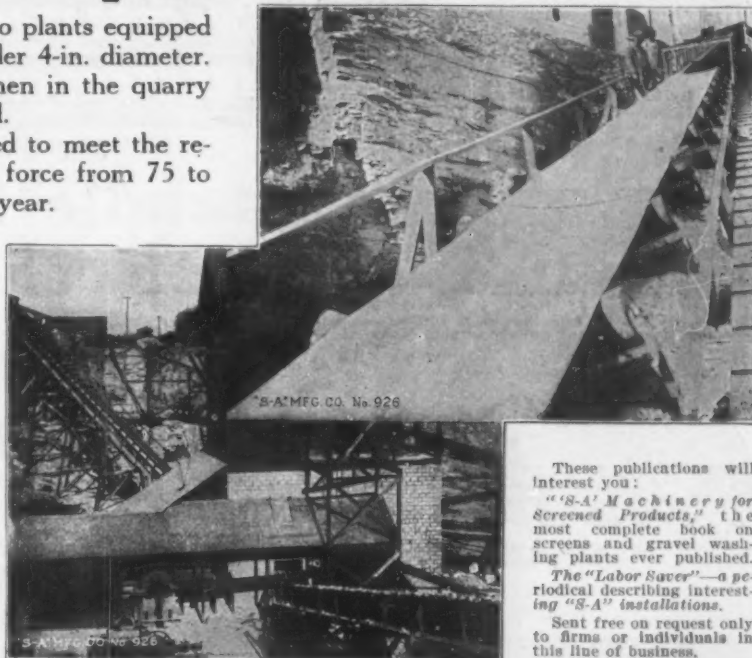
One of the large stone companies operates two plants equipped with No. 7½ Crushers capable of taking stone under 4-in. diameter. This formerly meant the employing of 25 extra men in the quarry just to break up the stone and load the cars by hand.

The installation of "S-A" Equipment, designed to meet the requirements, enabled them to reduce their working force from 75 to 50 men, and saved the company nearly \$15,000 a year.

Here's How It Was Done

They installed a preliminary crushing plant, containing a crusher capable of handling stone 36x60 inches. This permits of loading by a steam shovel in the quarry and eliminates all hand-breaking of stone.

This preliminary No. 36 Crusher delivers to two 30-inch "S-A" Belt Conveyors which convey the stone to the two main crushing and screening plants. A logical and economical improvement made possible by a correctly-designed conveying system.



These publications will interest you:

"S-A" Machinery for Screened Products," the most complete book on screens and gravel washing plants ever published.

The "Labor Saver"—a periodical describing interesting "S-A" installations.

Sent free on request only to firms or individuals in this line of business.

Stephens-Adamson Mfg. Co., Aurora, Ill.

New York, Chicago, Pittsburgh, Boston, St. Louis, Detroit,
Salt Lake City, Los Angeles, Huntington, W. Va., Toronto

We design and manufacture conveying machinery for rock crushing plants, gravel washing plants, storage systems, etc. Also transmission and screening equipment, elevators, gates, feeders, car pullers.



United States Custom House and Postoffice, Omaha, Neb.
KALLOLITE PLASTER USED

Kallolite Cement Plaster

Was used on the Omaha Post Office, as well as many other

Government and Public Buildings.

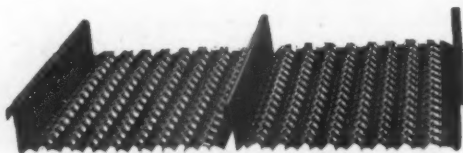
Kallolite Cement Plaster is manufactured from the Purest Gypsum Rock found in the United States as shown by last Government Report.

CARDIFF GYPSUM PLASTER CO.

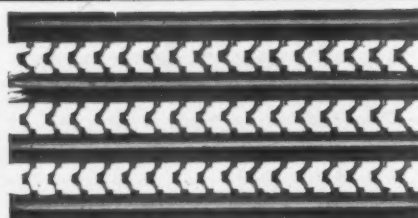
Write for literature.

FT. DODGE, IOWA

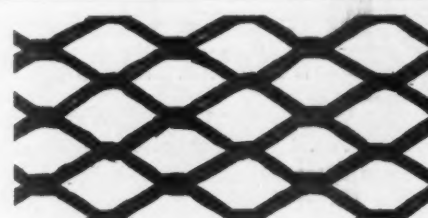
Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



1 1/2-in. Hy-Rib. Very rigid. For heavy loads and wide spans.



Beaded Plate Rib Lath permits two-coat work instead of three.



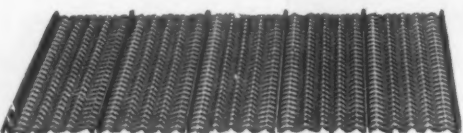
Diamond lath in two types and various gauges.



15/16-in. Hy-Rib for floors and roofs without forms—sidings, partitions and ceilings without channels.



18/16-in. Hy-Rib. Widely used in partitions, sidings and ceilings.



3/4-in. Hy-Rib Lath used as self-furring lath and in partitions, ceilings, etc., for stud spacings 24 in. to 36 in.



Channels without prongs, 1, 1 1/2, 2 inches.

Handle the Complete Line with the Biggest Profit

Secure your own and your customer's complete satisfaction by handling the line that is known for its value and the service back of it. Our complete stocks and organization warrant immediate shipment.

HY-RIB and RIB-LATH

come in a complete assortment including:—

Hy-Rib in four depths from 3/4" to 1 1/2". Each in various gauges.
Rib Lath, a most economical lath in three types and various gauges.
Diamond Lath in two types and various gauges.
Kahn Pressed Steel Studs include channels from 3/4" to 2" in size, studs with prongs from 2" to 12" and hollow studs in various sizes.
Steel Corner Beads for the protection of plastered corners in four types.
Metal Base Screeds for use between cement base and plaster are supplied in three types.
Inserts for use in concrete slabs, beams or columns, for attaching fixtures, etc., are furnished in three types.

Write for Catalog, Suggestions and Quotations



Trussed Concrete Steel Co.

Dept. H26

Youngstown, Ohio

Representatives in Principal Cities



Kahn pressed steel channel studs, 3, 4, 5, 6 inches; also 2 inches without turned flange

The Future of Macadam Roads



Boulevard between Pleasantville and Atlantic City, New Jersey. Five miles long. 60 feet wide. Gravel with Glutrin Binder. Five years old.

is an assured success by the use of Glutrin Road Binder. Glutrin Bound Roads maintain a durable, firm surface for every month in the year. Glutrin Bound Roads mean more business for this year and future years to every contractor and producer of macadam road material.

FULL INFORMATION UPON REQUEST.

YOUR CO-OPERATION IS EARNESTLY INVITED.

The Glutrin Paving Co., Hartman Bldg., Columbus, O.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



"A Northwestern Ohio Finishing Hydrate"

Let's

Solve this Hydrate problem right now. Make certain of getting a fine, pure white, easy working and regular product by ordering

MONARCH

We guarantee every pound.

Write today for prices and information.

The National Lime & Stone Co.
CAREY, OHIO



**PLYMOUTH
CLAY
PRODUCTS
CO.**

FORT DODGE, IOWA

PLYMOUTH GYPSUM CO.
FORT DODGE, IOWA

Manufacture what is known as **QUALITY BRANDS**
ORDER A CAR AND BE CONVINCED

Plymouth Plaster and Finishes	White Sand Float Finish
Plymouth Wood Fibre Plaster	Best Bros. Keene's Cement
Acolite Cement Plaster	Sackett Plaster Board
(the long keeper)	
Exterior Plaster	Tiger Brand Hydrated Lime
Fireproof Gypsum Partition Tile	

Write for advertising matter and prices

BRANCH OFFICES: {1015 Lumber Exchange, Minneapolis
5040 St. Lawrence Ave., Chicago

GF

YOUNGSTOWN, OHIO.

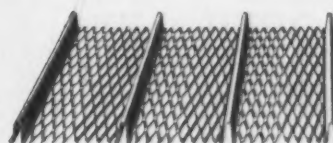
Trade Mark

Reg. U. S. Pat. Off.

Dealer Policy

First—to provide a complete line of fireproof building materials and water-proofings. **Second**—to protect the dealer in the sale of GF Products. **Third**—to help him sell in every way we can.

As a result, leading dealers are yearly increasing their business and profit on the GF Line. Where territory is still open we will be glad to send details of the profitable GF Dealership. Better write now.



Self-Sentering

for roofs, floors, curtain walls, partitions in every class of building. Acts as form and reinforcement or as lath and stud. Saves time, labor and material.

GF Steel- Tile

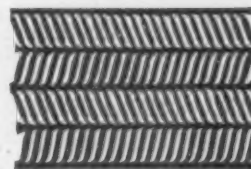


Steel forms for T-beams, concrete floors, adaptable to any type of building, good for spans up to

30 feet. Give light weight, economical floors.

Herringbone Lath

The stiffest metal lath made. Will insure permanence and satisfaction on all classes of plaster work—particularly good for stucco jobs. Permits 16" to 20" stud spacing without sagging.



Also

Trussit and Expanded Metal Reinforcements, GF Cold Rolled Channels, Corner Beads, Wall Ties, etc., and a complete line of GF Water-proofings, Damp-proofings and Technical Paints

Write for Dealer Information

The General Fireproofing Co.

1107 Logan Avenue

Youngstown, Ohio

Tell 'em you saw it in **ROCK PRODUCTS AND BUILDING MATERIALS**



ALL BUILDERS ARE USING EDISON CEMENT

The big sales of Edison Cement in the last few weeks are an indication of the extent to which it is being employed on fall building projects. Its high quality means satisfactory results, and its rapid setting properties insure the prompt completion of the work, despite the handicaps of weather.

Edison dealers will find Edison service as valuable to them as the guarantee of the Edison name is to cement users

Edison Portland Cement Co.
Boston New York Philadelphia

R.I.W.
REMEMBER IT'S WATERPROOF
R.I.W.
MEANS
PROTECTION
PRESERVATION
PERMANENCE
REG. U.S. PAT. OFF.

No 232 R.I.W.

DAMP-RESISTING PAINT

For Masonry Walls Above Grade

No. 232 R. I. W. Damp Resisting Paint makes brick, terra cotta and concrete walls damp-proof, stain-proof and vermin-proof.

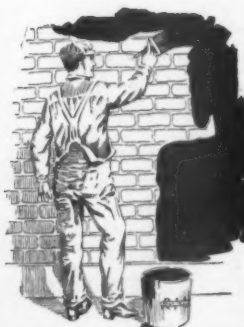
Applied with a brush to inside of outside walls above grade level, it saves the cost of furring & lathing. A black, water-proof, elastic, tacky material that bends perfectly with plaster.

The use of this Toch product makes possible larger rooms, as it eliminates the space taken up by furring and lathing.

Send for copy of Toch "Bed Book." Address Dept. 12.

Toch Brothers

Technical and Scientific Paint Manufacturers Since 1848
320 Fifth Ave., New York City
Works: New York; London, Eng.; Toronto, Canada



Dealers—

are each day learning that, because of U. S. G. quality, prestige and advertising and selling co-operation, U. S. G. WALL PLASTER as well as the extensive U. S. G. line of Specialties can be retailed with least effort—hence with greater profit.

Write today for quotations on fall requirements

United States Gypsum Company
205 West Monroe Street Chicago, Illinois

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

CONDITIONS IN THE WEST.

Kansas City, Mo., Oct. 5.—Car shortage seems to have at last struck a good solid blow at the Central West. The shortage has affected the cement industry in particular. Coupled with a heavy demand is an adequate supply of cars, with a result that all mills are behind with their shipments, ranging from two or three days to as many weeks. Many dealers are making strenuous efforts to replenish stocks that have been allowed to run too low. Many large contracts, and particularly paving contracts, have been delayed. The reports of the Interstate Commerce Commission and the railroads do not seem to indicate that relief can be expected for some time.

High prices of materials have held up the construction of a number of business buildings. An interesting incident arose in Kansas City this week, where bids on a large garage were so high as to cause the owner to put off construction until an era of lower prices would be ushered in. At the present time there is no indication of any weakness in building material prices. On the contrary, the strong demand and difficulty in shipping will undoubtedly keep the level up.

Notwithstanding high prices, there are several very large reinforced concrete jobs going forward at the present time in Kansas City. Among them are the warehouse for the Butler Paper Co. and the Railway Exchange. Both of these buildings are in the northern part of the city and are associated with the attempt to "bring back" this portion of the business section.

PITTSBURGH BUSY; EXPECT GOOD FALL.

Pittsburgh, Pa., Oct. 5.—Weather for outside construction work of all kinds couldn't be better than it has been the past month, except that little water would help excavating, as the ground is extremely dry. Contractors have been unusually busy all the fall. Most of them are pretty well cleaned up on their summer jobs and now are bidding on work which will drag along through the winter. The great difficulty is in getting help. Wages for manual labor were never so high as at present, and all contract figures are now running away above similar estimates made a year ago.

Deliveries and materials have been coming forward very regularly, with the exception that in some cases where the car shortage is acute supplies have been held up. In general, however, there has been very much less complaint along this line among the regular building supply dealers than among the retail lumbermen. Lumber shipments have been badly delayed, especially in the South and Southwest. Collections are reported fairly good by the wholesalers, and with as much prosperity all through the Pittsburgh district as there is at present there seems to be little chance of anything but a good fall and winter for contractors and also for retailers. Considerable street work is being let throughout Tri-State territory.

HUNTINGTON'S SUMMER BUSINESS GOOD.

Huntington, W. Va., Oct. 4.—Lumber and builders' supply dealers of Huntington have enjoyed a good summer. "I am glad to state that business conditions in general in Huntington and vicinity are above par," says G. J. Dickerson, secretary of West Virginia Lumber & Builders' Supply Dealers' Association.

"Lumber and builders' supply dealers in Huntington have had a very good volume of business, although we have a very large number of lumber dealers in comparison with the population of the city. Huntington has about 50,000 inhabitants and has eight large retail yards and three other concerns handling a portion of the line of a retail lumber yard. In order for all these concerns to do a fair volume of business, Huntington and the surrounding territory has to be almost booming."

MILWAUKEE FAVORED WITH NUMEROUS JOBS.

Milwaukee, Wis., Oct. 5.—While building permits during the past few weeks have generally fallen below those of the corresponding weeks a year ago, it is notable that the work now authorized includes many more smaller structures. The Milwaukee permits total far in excess of those for the same period of a year ago, because of the large amount of building authorized early in the season and which included several large structures. While the amount of the permits means a corresponding amount of building material used, it must be considered that an increase in the number of permits allows a wider distribution of the business among the building material firms. For this reason the fact that the number of permits equals that of last year, or is in excess, means that the smaller dealers are generally more benefited by the present condition in the building trades.

There has been practically no relief in the labor situation, and both material supply firms and contractors are suffering from the shortage. In addition to this comes the freight car shortage, which has in many instances been acute and caused a hardship to dealers and contractors. The Wisconsin Railroad Commission has taken an interest in this matter and issued a letter to both the railroad companies operating in this state and to shippers. The commission urges co-operation to relieve the inconvenience and loss caused by such shortage. Prompt switching, proper distribution and prompt repairs to cars are suggested by the board, while shippers are urged to load and unload cars without delay, load maximum capacity, order only the actual number of cars immediately required and to notify the railroads as soon as the cars are ready to be moved.

The general business conditions in Wisconsin during the past two months have been exceptionally good, as is shown by the abstract given out by Commissioner of Banking A. E. Kuolt, covering the reports of the 728 state banks and trust companies at the close of business Sept. 12. Total resources on that date were \$282,708,428.54. Since June 1, 1916, the net increase in resources is \$6,612,715.51, while for the year past the increase is \$35,015,540.41. Deposits since June 30 show an increase of \$7,340,127.80.

The conclusion of the strike in the iron and steel industry in Milwaukee, which, if the plans of the agitators had materialized, would have affected 5,000 men, has brought about a revival in retail business. Several of the big manufacturers were on the verge of closing down, but the men are coming back. With brisk conditions in that industry and high wages the laboring men are again turning their thoughts to building homes, repair work, etc.

Reports from various cities of the state where big manufacturing plants have increased capacity and constructed new buildings during the summer indicate that the retailers will find favorable fall business. At Kenosha, Wis., The Kenosha Homes Co. has been organized to erect 400 homes for workmen who are being added. At the present time contracts are now operative for the construction of new buildings to the value of \$2,950,000, exclusive of city improvements. The Builders' Home Co. has been organized at Waukesha, Wis., to relieve the situation, due to the shortage of houses for the increasing number of employees at local plants. A building and loan association is being organized at Sheboygan Falls for a similar purpose. Other cities of the state are taking similar action. The organizations are not for the purpose of bringing financial returns to the organizers, but for the benefit of the cities, by providing facilities for new workmen and inducing them to establish homes with their families. The labor and material for the new homes will in all cases be purchased locally.

CONDITIONS IN WESTERN CANADA.

Winnipeg, Man., Sept. 30.—Business in the building, world in Western Canada has improved to a large extent in rural districts during the last two weeks, owing to the fact that the farmers are practically through with their harvesting operations and are now turning their attention to the erection of new houses and barns on their farms. The supply houses in the West all report doing a large business; in fact, several state that never since 1914 has such a good trade come their way. Next month or during November, when the farmers obtain payment of their \$400,000,000 crop there will be still a better business done in the building supply business.

At Winnipeg building permits for nine months total \$1,963,000. Work is proceeding on several large Winnipeg structures, including the \$600,000 Eaton store, which is practically completed, the \$500,000 bank building for the Bank of Hamilton, the walls of which are going up, and the Stovel building, which will cost \$250,000. All of these buildings are being built of reinforced concrete and are expected to be finished by next spring.

The prices of building materials are somewhat higher than last year and the local contractors are suffering from a want of labor, wages all round having been advanced. Prospects for 1917 comprise a subject few will express an opinion on. Some contractors say that the war will end before next winter, and if that be the case no one can tell what will happen in the building and real estate lines, declared a large contractor who is erecting a large industrial building at Winnipeg.

As an example of the revival in the building supply business in Western Canada, one of the largest lumber deals consummated for several years has just been concluded at Lethbridge, Alta., whereby the Western Canada Lumber Co., with head office at Lethbridge, has disposed of ten of its Southern Alberta yards to the Beaver Lumber Co. of Winnipeg, one of the strongest line yard concerns in Canada. The yards concerned in the transfer are located at Granum, Claresholm, Parkland, Stavely, Nanton, Cayley, Brant, Champion, Carmangay and Barons.

The building supply business in Southern Alberta has not been so active for years, according to Mr. Peter Lund, one of the principals of the Western Canada Lumber Co., every line yard doing a business which has never been surpassed in their history.

CANADIAN BUILDING CONDITIONS IMPROVE.

Toronto, Ont., Oct. 3.—Building conditions continue to improve, and this is general throughout Ontario. As an illustration the building permit figures for Toronto for September show a valuation of \$643,375, a gain of \$124,738 over September of last year. The permits for the first nine months are valued at \$5,006,649, which is a gain of \$264,774. Building permits for September show Windsor to have had an active month in building. Forty-four permits, totaling \$116,625, were granted, as compared with \$77,385, or an increase of over fifty per cent on last year. The total for the first nine months of this year reached \$1,008,580, an increase of over 170 per cent on the corresponding period last year. The building permit figures for August for Canada shows an increase of 100 per cent over August, 1915, and it looks as if this would be repeated in September.

Detroit, Mich., Oct. 5.—Such is the demand for various kinds of building materials that manufacturers and supply houses catering to this market have had to work hard to keep up with orders this year. The increase in the quantity sold is enormous and there is not much sign of a let-up although what was considered a slack season is approaching.

CONCRETE

Motor Trucks Facilitate Handling of Concrete

Without the use of motor trucks it would have been impossible to employ the huge concrete mixers and other paraphernalia used in the construction of Cleveland's new \$4,000,000 high level bridge.

This structure is the longest double-decked, three-hinged steel arch bridge in the world and when completed will connect the west side of Cleveland and its 300,000 population in direct communication with the great downtown business district. Work on this gigantic improvement was started in May, 1912, and while County Engineer Zesiger estimates that vehicles and pedestrians will be able to use the upper deck some time in November, the east and west subway approaches will not be opened for trolley traffic before the latter part of 1917.

The cost of tackling this job without the use of dependable motor trucks would have been prohibitive, engineers say, because it was estimated that in certain phases of the haulage work one truck could make four trips to a team's one, hauling twenty-four tons of material, while a team could haul but three. The trucks performed a double duty in hauling the concrete work. First they hauled the cement, sand, gravel, slag and limestone to the mixers and after it had been properly mixed re-hauled the mixed concrete to the forms. The speed of the trucks was important because they offered the only means of transportation that enabled the contractors to secure the materials in sufficient quantities to keep the giant mixers busy. In hauling the mixed concrete to the forms all the units of the job had to be poured continuously, and it was absolutely necessary that the handling be done in a dependable motor truck, as a breakdown in the middle of the job would be very serious and entail heavy financial losses to the builders.

Forty-four White motor trucks, working for eight different contractors or building material companies, have hauled over sixty per cent of the thousands of tons of construction materials, including:

543,000 sacks of cement.

62,692 tons of sand.

15,653 tons of limestone.

108,900 cubic yards of mixed concrete.

Several thousand cubic yards of slag.

Tons of miscellaneous materials, tools and other supplies.

Engineers in charge of the improvement have praised the efficiency and dependability of the fleets of White trucks at work on the bridge, and Chief Engineer Harry Hilton of the Hunkin Conkey Construction Co., which holds a \$1,028,570 contract for building the superstructure, not including the steel span, the end abutments, approaches on pier No. 12, says with reference to the White trucks:

When we started work on the high level bridge we were paying an extra price to the supply houses for all concrete materials that had to be hauled from their docks to the job. Later we figured that we could buy another White truck, haul our own material, the truck paying for itself with the difference in hauling costs and we would be a truck ahead at the end of the job. The contract is now seventy-five per cent completed and the truck has already paid for itself, together with all upkeep charges. Besides this, it had time to haul steel, supplies, forms, etc., and make trips to other jobs which we have in the city.

One of our White five-ton power dumping trucks loaded with two and one-half yards of mixed concrete had no difficulty in walking right up the Detroit avenue hill on the west end of the bridge, which has a grade of over ten per cent. In using the trucks to haul concrete from the mixers to the forms all the units of the job had to be poured continuously and it was very essential that this handling be done with a dependable truck as a breakdown in the middle of the job would be very serious. We are well satisfied with our White trucks, which have proven great money-savers and money-makers.

R. W. Blake, building contractor, used six White five-ton power dumping trucks to haul 12,692 tons of sand, 14,758 tons of gravel and 1,653 tons of limestone in addition to tons of miscellaneous material to the bridge. Blake's White trucks worked twenty-four hours a day for over two months continuously in hauling concrete material for the building of the west piers. The material was hauled over a mile course, the trucks crossing two draw bridges, a railroad and climbing the Detroit avenue hill with twelve per cent grade. One truck made over thirty-five trips in ten hours, hauling approximately 175 to 200 tons of material. Mr. Blake says that the wide bodies on the trucks made it an easy matter to load them quickly from a clamshell bucket without any overspill and that the entire load could be dumped at the mixers in less than a minute. The trucks were economical to operate and cost nothing for repairs.

While the Blake trucks were hauling to the west piers a cave-in occurred and all hauling operations had to be delayed for a period of six weeks. On April 1, 1916, the Blake garage was visited by a disastrous fire which completely destroyed the six

White trucks and seven trucks of other makes owned by Mr. Blake. The next day Mr. Blake visited the White factory and placed an order for eleven five-ton White dumping trucks. This fleet is now engaged in hauling material to the bridge, and Mr. Blake says the reason that he purchased all Whites was because actual performance and accurately kept cost records convinced him of the practical economy of their use.

The Cleveland Builders' Supply Co., which owns a fleet of nine White trucks, hauled approximately 400,000 sacks of cement and other materials to the new bridge. The trucks averaged two miles to a round trip.

Four White trucks owned by the Cuyahoga Builders' Supply Co. hauled 180,000 sacks of cement to the bridge. The material was hauled from the company's warehouse three-quarters of a mile from the bridge and each truck was able to load, carry the material to the bridge, unload and return to the warehouse within a thirty-minute period.

W. A. Fay, president and general manager of the Cuyahoga company, in speaking of the work his White trucks performed in hauling material to the bridge, said:

Motor trucks have greatly speeded up this improvement. It is certain that we could not have used any other means of transportation to haul materials in sufficient quantities to keep the mixers busy and delay for want of material would have been critical. Our White trucks performed perfectly. They are economical to operate and not one of them has shown any signs of wearing out.

Four White power dumping trucks owned by the Cleveland Macadam Co. hauled several thousand cubic yards of slag for one of the east piers of the bridge. The trucks made four trips an hour, covering two miles to a round trip and climbing Main street hill with a ten per cent grade. A. D. Bender, secretary of the Cleveland Macadam Co., says:

One of our White five-ton power dumping trucks used in hauling to the bridge is the third power dumping truck built by the White Co. We purchased it in August, 1911, and it has covered over 100,000 miles and still shows no signs of wearing out. This particular truck paid for itself in the first four months it was in our service and in addition it had earned the cost of a complete new set of tires.

We are particularly pleased with the White hoisting device. We have tried trucks of other make with the result that the hoists break frequently and then the trucks are out of service sometimes a week or ten days at a time. We estimate the earning power of our trucks at \$25 a day, so you can see what loss trucks-out-of-service incurs to us. The only trouble we ever have with the White hoist is to replace a few screws every eighteen months or two years.

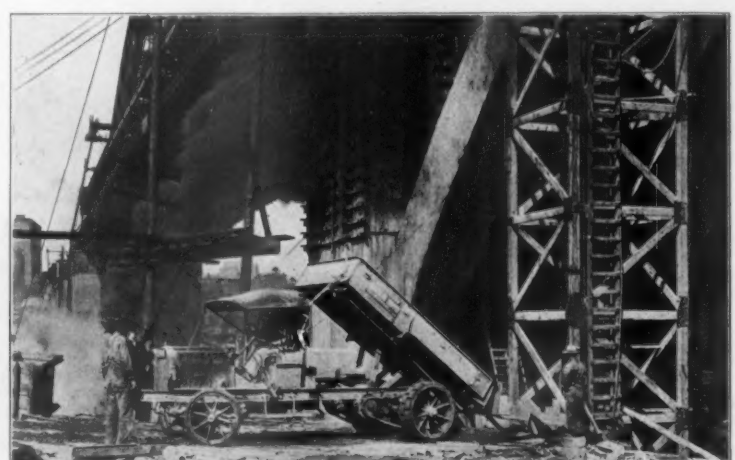
County Bridge Engineer Zesiger, who designed the bridge, pays a high tribute to the efficiency and dependability of the White trucks on the job and says that they have proven a most important factor in rushing the improvement to completion. He declared:

We have watched the work of the trucks with great interest and they have been very satisfactory. They have hauled enormous quantities of materials in the shortest possible time and are the only mode of transportation that could be depended upon to keep the mixers busy.

The bridge consists of twelve concrete spans and



TRUCK READY TO DUMP LOAD OF MIXED CONCRETE INTO THE LIFT, WHICH Carries It to a Chute at the Top of the Shaft and Re-distributes It by Means of Gravity to the Forms.



TRUCK DUMPING MIXED CONCRETE INTO THE LIFT. CHIEF ENGINEER Hilton says: "In Hauling Mixed Concrete All Units of the Job Had to Be Poured Continuously and a Truck Breakdown Would have Been Serious."

one steel span, measuring in length over all 2,880 feet. The steel span, which crosses the Cuyahoga river 200 feet above the water, is 591 feet in length. The contract for building the span was held by the King Bridge Co. and amounted to \$648,126. The 4,100 tons of steel required for the span, together with the 3,725 tons of reinforcing steel used in the piers would make a wall 5' high, 6" thick and thirty miles long.

The width of the bridge over all is 81' 6", 45' being devoted to a roadway, 14' 9" to the width of the sidewalks, and the lower deck will accommodate six street car tracks. The upper deck will be used exclusively for pedestrians and vehicle traffic. Street cars will enter the east and west approaches of the bridge by means of a subway, bids for the building of which will be advertised within a few weeks.

The material used in the construction of this bridge would require a train of railroad cars over seventy-five miles in length to carry it, and if hauled in motor trucks would require approximately a line of over 26,000 trucks.

The new high level bridge has been a dream of residents of the west side of Cleveland, city, and council officials and engineers for years, and the realization of this dream is certain to open many new and permanent advantages to the forty per cent of the sixth city's population that live across the river.

Heretofore the west side of the city has been connected to the downtown districts by means of the old Superior viaduct. This was built in 1875 at a cost of \$1,574,921.23, but the rapid growth of the city and the increase in traffic has made it entirely inadequate. The drawbridge was another serious handicap. This was swung several times a day to allow lake freighters to pass up and down the Cuyahoga river, and this delay resulted in a loss of time from ten to twenty minutes each time the draw was open. The narrowness of the roadway caused numerous accidents which tied up traffic and was another strong argument in favor of the passage of bond issue for building the new high level bridge.

HISTORY OF CONCRETE-SHIP CONSTRUCTION.

The following statement from the Washington office of The Panama Canal adds to information regarding the history of concrete ships, published in the last issue of ROCK PRODUCTS AND BUILDING MATERIALS:

"In 1910 the Isthmian Canal Commission constructed three concrete barges on the Isthmus for use in supporting the dredging pumps for the hydraulic excavating and pumping plant of the Pacific Division. The first of these barges was launched on April 20, 1910, and the last on Aug. 8 of the same year. The barges were 64' long by 24' wide, having a depth of 5' 8". In an article which appeared in the Canal Record of Feb. 9, 1910, relative to the proposed construction of these barges, it was stated:

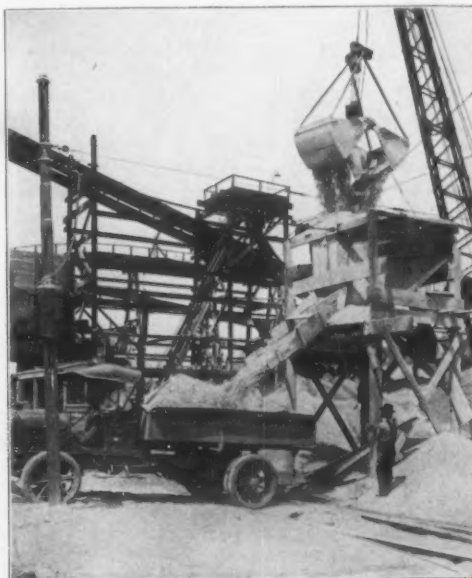
"While the construction of barges from concrete is not a new idea, its adaptation is not known to have hitherto been attempted in American engineering. Concrete barges have been successfully used in Italy during the past few years, and recently the use of this material in the construction of floating craft in that country was extended to the building of transfer boats, a type of vessel similar to the New York car ferries. The plans of the Pacific Division barges contain numerous modifications from the Italian type, some to meet local conditions and some because of the continual improvement in concrete construction methods."

Reports from New Orleans and other points in the South are to the effect that the use of steel in building construction has decreased very noticeably during the last two years because of the great increase of steel prices. In practically all such work concrete is being used.

NEXT CEMENT SHOW FEB. 7-15.

The Tenth Chicago Cement Show will be held under the direction of the Cement Products Exhibition Co. in the Coliseum, Wednesday, Feb. 7, to Thursday, Feb. 15, 1917, inclusive.

The concentration of exhibits in the Coliseum, Balcony and Annex will enable visitors to inspect them conveniently. Machines and products will be closer together, thus facilitating comparison and enabling buyers to make purchases more expeditiously. However, as less space will be available for the next show than for the last, each exhibitor will be asked to apply for as little space as can ac-



SAVING TIME IN LOADING AND UNLOADING MATERIALS. The Material Is Lifted from a Barge to the Loading Bin by Means of the Clam Bucket and Later Transferred to the Truck by a Chute. The Power Dumping Device on This Truck Will Dump the Complete Load in Thirty Seconds.

commodate his exhibit, and in this way it is hoped to make the number of disappointed applicants as small as possible.

Closing the show on Thursday will make it unnecessary for exhibitors to be away from home more than one Sunday.

There will probably be a joint exhibit of cement companies similar to the one at the last show. The ninth show joint exhibit was considered by visitors, the building fraternity and the trade press to be the most complete and comprehensive display of the uses of concrete ever presented to the public. The exhibit was broadly educational and promotional in its scope. It interested the general public as never before in the uses and possibilities for concrete. It is planned to make the tenth show joint exhibit even more comprehensive than that of last year and to show, to as large an extent as possible, products in the making.

During the eight-day period Chicago will be the center of activity in the building material industry. The National Builders' Supply Association will hold its annual convention at the Hotel Sherman, Feb. 11 and 12, and the Illinois Lumber & Builders' Supply Dealers' Association at the same hotel Feb. 13 and 14. While the dates have not been definitely set, it is probable that the American Pipe & Tile Association will be in session during the Cement Show. It is also likely that the American Concrete Institute will meet at the same time. Beside these organizations, it is possible that the American Association of Engineers and other similar associations will convene in Chicago during the show.

Since only the Coliseum and Annex will be used for the next show, it is probable that the demand will exceed the available space. Therefore, those desiring to exhibit should make application for space at once.

CONCRETE NEWS OF THE CONCRETE FIELD.

The California Glazed Cement Pipe Co., of Los Angeles, has established a temporary branch factory at Chino, Cal., for the purpose of making cement pipes to be used in the sewer system of Chino.

The Zagelmeyer Cast Stone Co.'s plant at Detroit, Mich., shows an increase in business of 125 per cent over last year. The company specializes in wet process concrete block construction. The blocks are largely used for foundations.

The Chappell bridge, eight miles southeast of Harrington, Wash., was completed last month. The new structure is a fifty-foot concrete arch. It is the intention of the county road officials to provide a concrete bridge to replace the present wood structure at the Green ranch, four miles southeast of Harrington, next season. Work on a forty-five-foot concrete arch five miles north of Lamona will be commenced very soon.

A new sewage disposal plant is being built for Columbus, Ohio, by Contractor D. W. McGrath, the concrete being placed with a concrete gun.

A new power plant is being built by reinforced concrete for the Dayton Power & Light Co., South Dayton, Ohio. The construction of the building will necessitate the use of 35,000 barrels of Atlas cement. The Deleo Co. is putting up a new plant at Dayton for the manufacture of house lighting systems and aeroplanes. Forty thousand barrels of cement will be used.

Eighty thousand barrels of Lehigh Portland cement will be used in the construction of the Cincinnati Power & Light Co.'s power house which is now under construction.

Work has been commenced on a new power plant eight miles south of Mansfield, Ohio, which will be operated by John L. Doherty & Co., of New York City. The building will be of reinforced concrete and will require 20,000 barrels of Portland cement.

S. G. Geyer of Elizabethtown, Pa., is arranging to build a small plant to manufacture cement building blocks.

The T. A. Gillespie Co. is working hard to complete the concrete work on the \$2,000,000 pumping station of the Edgar Thompson Steel Works at Braddock before winter sets in. An elaborate system of towers and chutes is used to distribute the material to all parts of the foundation being built in the Monongahela river at the foot of Fourteenth street.

Reinforced concrete construction in 120 by-product coke ovens at the Minnequa steel plant at Pueblo, Colo., will require 125 tons of steel rods.

The first real concrete road in Contra Costa County, California, was recently started. The new Cowell finishing machine is being used on this work, and reports say that the machine eliminates the formation of rolls or waves on the surface. The concrete is screened, as customary, and also subjected to a tamping action which tends to eliminate air bubbles—in fact, some of the concrete removed from the road shows the top inch or inch and a half to be much denser than that near the subgrade.

CONCRETE INFORMATION FOR RURAL CONTRACTORS.

Rural contractors specializing in concrete work, especially those building silos and other farm structures, also contractors or others who would like to specialize on such work, will be interested in knowing of a co-operative plan now being carried out by the Extension Division of the Portland Cement Association.

Anyone interested in concrete contracting work or in taking up such work, is urged to address a letter to the Director, Extension Division, Portland Cement Association, 111 West Washington Street, Chicago, for some information that will prove valuable, and that can be obtained without cost or other obligation.

CEMENT

EDISON CONFERS WITH CEMENT SALESMEN

The summer sales convention of the Edison Portland Cement Co., held recently at Orange, N. J., brought together the entire sales force of the company, and in addition prominent officials identified with the Edison interests.

Thomas A. Edison, chairman of the board of directors of the company, was the central figure of the convention. His son, Charles Edison, a director, also took an active part in the sessions of the convention. Following a discussion of the past work and the future plans of the cement company and an informal luncheon, President W. S. Mallory directed a thorough and detailed inspection of the Orange plant.

It was announced during the convention that the installation of the new tube mills, the largest ever installed in any cement manufacturing plant, along with other new and modern machinery, was practically completed. The cement plant at New Village, N. J., as it stands today is the largest single unit of any cement mill in the East.

One of the most interesting features of the sales convention was a visit to Mr. Edison's office. It is a large room with a balcony all around it. In this unique office Mr. Edison has models of many of his inventions, and parts of many others. Here also are displayed historical documents which show the part some of his inventions have had in the scientific progress of the country.

One of the unusual features of this office is a moving picture machine which is entirely concealed. By opening a slot in the wall it is let down, while on the opposite wall a screen is brought down in a

like manner and a motion picture exhibition can be given at once. Mr. Edison manifests his democratic spirit here by sharing his working quarters with six assistants.

The following officers of the Edison Portland Cement Co. attended the Orange sales conference: Chairman board of directors, Thomas A. Edison; director, Charles Edison; president, W. S. Mallory; assistant to the president, Harold M. Scott; financial executive, S. B. Mambert; treasurer, H. A. Miller; secretary, W. E. Horne; auditor, A. Hollingsworth-Moses; New York sales manager, R. A. Wetzler; New England sales manager, A. C. Bruff; Philadelphia sales manager, Gaston Daus; office manager, S. P. Maginnis; advertising counsel, C. Leon Barritt; advertising manager, W. L. Hassenplug.

The salesmen present at the conference were G. H. Elliott, W. H. Gardiner, F. W. Somers, H. R. Kelly, B. F. Chase, F. C. Willbrand, J. R. Sullivan, C. O. Sikora, E. S. Bixler, R. M. Holmes, A. W. Somers, F. B. Parker, G. M. Edwards, F. L. Furbush, R. Mason, P. C. Smith, H. F. Wight, W. H. Jones, F. A. Sweeney and A. J. Stanford.

BALTIMORE FIRM INCORPORATES.

The Rockcastle Cement & Lime Co., Baltimore, Md., has been incorporated under the state law of Delaware, with a capital of \$1,500,000, to manufacture cement, lime, plaster, etc. The incorporators are: Robert S. Maslin, Harry J. Matthews, Waldo Newcomer, all of Baltimore.

AFFLECK OPTIMISTIC OVER 1917.

"Construction work is being carried on in this country at an unprecedented rate," says B. F. Affleck, president of the Portland Cement Association. "The value of building permits taken out in 112 cities in the United States during the first eight months of the current year totals \$672,448,265, making an increase of almost thirty per cent over permits taken out during the same period last year. Everything points to a continuance of the present satisfactory conditions and I look for an equally active building season in 1917, if indeed we do not exceed this year's record."

INTERNATIONAL PLANT DAMAGED BY FIRE.

Fire in the stockhouse of the International Portland Cement Co., at Irwin, Wash., on Sept. 18, caused a loss estimated from \$70,000 to \$90,000 before it was halted. The remaining buildings were saved by prompt work on the part of Superintendent J. M. Neill and employees of the plant. The structure was of wood and sheet iron construction, and was used to store the finished product.

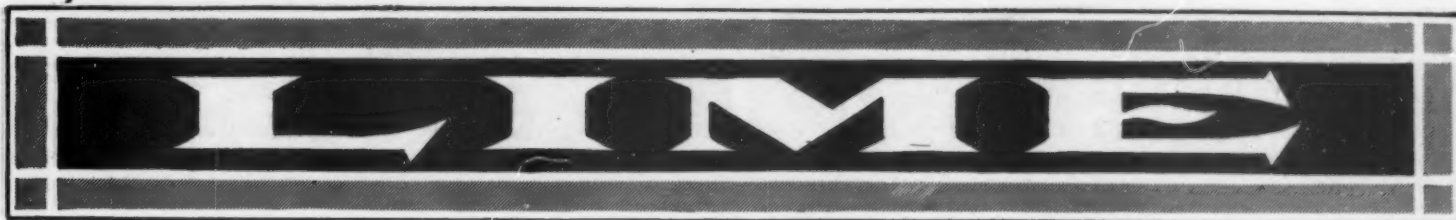
A greater portion of the loss was caused by water coming in contact with 40,000 barrels of cement in the building. The conveyor machinery is a total loss. The clinker mill was damaged, but not enough to prevent its being operated within a few days.

The plant was fully insured, according to Auditor Charles F. Sechrist, and construction of a new stockhouse will begin at once.



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SALES DEPARTMENT OF EDISON PORTLAND CEMENT CO. GROUPED AROUND THE GREAT INVENTOR.



Agricultural Lime Most Important Field.

The annual meeting of the Agricultural Lime and Limestone Association was held at the Hollenden Hotel, Cleveland, Ohio, Oct. 3. Vice President J. R. Rowland, of Youngstown, presided. The roll call was dispensed with, as members were continually arriving.

Secretary H. V. Briggie read the record of previous meetings and reported the financial condition of the organization, requesting an audit of the accounts. This was later reported by the auditing committee to be in all respects correct as read. The treasurer called attention to the need for more money with which to extend the campaign of promotion.

Manager G. J. Wilder made his report of the progress of the campaign during the past year. He had several township maps of the state of Ohio showing where work has been done for interesting farmers in the use of lime and limestone. Another map showed the different locations in which liming of the soil had made considerable progress. Along with these maps were several displays of advertising matter which have been used to good effect. The manager has during the year visited eighty counties in the state and sent literature into all of them. More than 5000 letters have been received and answered, and follow-up matter sent after the correspondence. He said that at least \$12,000 ought to be put into advertising to develop the full possibilities at present in need of attention. The possibilities are as boundless as the territory, for lime is needed practically everywhere and for all kinds of crops. The report was very encouraging as well as interesting and instructive and at the close of the report Mr. Wilder was heartily applauded.

The chair announced that the balance of the program would go over to the next regular meeting to be held in sixty days, in order to take up the paper of Professor Bear immediately after luncheon.

Immediately after recalling the meeting to order Chairman Rowland introduced Professor Firman E. Bear of the College of Agriculture, Ohio State University, who presented a paper entitled: "Experimental Evidence Upon the Use of Lime and Limestone in Agriculture." In this paper Prof. Bear stated the facts resulting from a large number of tests made at the Wooster experiment station together with other tests made at Columbus and elsewhere. He made no comment other than explanations for the better understanding of his text, and he built up no argument out of the conclusions. In many respects the paper is one of the best documents upon the subject of the value of liming that has been produced. The full text and tables will be published in the next number of this journal.

The experiments show that lump lime, hydrated lime and ground limestone are equally effective upon corn, oats, clover, straw and hay when used with the same amount of manure, using the content of calcium oxide as the basis for comparison.

In the case of ground limestone, it was very clearly brought out that the finer the material the better would be the result.

Mr. Briggie called attention to the fact that screenings have been sold very cheaply, which are probably not a very good product for use in liming.

A. Acton Hall, of Piqua, said that all of the agricultural limestone he makes is first dried at about

450° F. and then ground and screened through a No. 20 screen.

Henry Angel, of Cleveland, said the amount of fineness desired could be produced, but what was wanted was to know how fine it should be to get the best results.

James Mollen, of Cleveland, said that the No. 10 screen was the smallest size that could be produced without preliminary drying, and that drying by any process would add to the cost.

Wm. Urschell, of Toledo, said a clear definition of the material is needed so that it can be promptly recognized.

H. S. Earl, of Cleveland, brought out the fact that hydrated lime, owing to its convenience for the farmer to handle in applying, offers a very valuable and practical talking point.

Lawrence Hitchcock, of Cleveland, felt that from the study of the several tables a practical working definition could be worked out, and it ought to be done at once.

Mr. Lind, of Toledo, said that the Fraser Co. had been able to sell screenings without any particular preparation. His concern will be glad to co-operate when the matter is better understood.

At the next meeting of the association the matter of specifications to define agricultural limestone will be considered.

REMOVING FOUNDATIONS FROM ACTIVE BOILERS.

Editor, ROCK PRODUCTS AND BUILDING MATERIALS:

I was much interested in reading the account in a recent issue of your paper of a difficult piece of work in removing by blasting old walls and foundations close to a battery of boilers under steam. This reminded me of some work which I at one time was called upon to do.

We had to take out several hard brick blowing engine foundations. These were about 12'x20' square on top and 12' high, and were located between other blowing engines which it was necessary to keep running. It was a location where blasting was dangerous, and chipping out by hand would be very expensive and slow.

We therefore adopted the plan of drilling the top face of the foundations with 3" holes located 3' apart each way and drilled 3' deep. These holes were filled with lumps of freshly slacked lime in size from 1/4" to 1 1/2" cubes. After a foot of lime was put in the hole, sufficient water was poured in to about cover the lime, then another foot of lime and more water until the hole was filled to within 6" of the top, then the top part was filled with brick drillings and tightly rammed, then the next hole was similarly treated.

After about ten minutes, cracks would start in all directions from the first holes filled, and in a short time after all holes were loaded, the entire top 3' of the foundation would be broken into pieces of about 3' cubes, this being the largest size which we could conveniently move by hand. If smaller pieces were required, the holes could be located closer together and of less depth.

Naturally, the holes should be loaded fast and care should be exercised after loading to not expose the body of the workmen above the loaded holes, as once the top filling blew out, otherwise there was no noise, no dirt nor danger of damage to moving machinery less than 10' away.

Some modification of this idea may be of use to your young engineers who may have work under similar conditions.

ENGINEER.

EASTERN LIME MARKET.

New York City, Oct. 5.—General demand throughout the Eastern territory continues very strong for all lime products. Agricultural plants are taxed to the limit to fill orders, and demand for building lime is reported heavy in practically all producing districts. Chemical demand continues strong throughout the Eastern sections. Labor shortage is still giving producers a great deal of trouble, and this condition prevails throughout the entire section. In all districts the production desired cannot be had, due to the inability of manufacturers to obtain the necessary labor. In some districts it is thought that this labor condition will show improvement as soon as the harvest season is over, which in this section will be very shortly.

In the Virginia district the majority of plants report fair to very good demand. Agricultural demand is particularly heavy at plants making a specialty of this product, night shifts being worked to get out orders promptly. Some plants are refusing agricultural orders so as to take care of the heavy building demand. Plants of the West Virginia district advise good general demand. Agricultural demand is diminishing somewhat, due to fall seeding having been largely completed. A strong chemical demand exists in this district, and building demand is reported fair to good. Agricultural demand keeps up well in the Maryland district, with some plants heavily oversold for this product. Labor troubles are still bothering producers, but relief is looked for now with the harvest season over. Plants of the Pennsylvania district advise a good general demand, but labor scarcity still prevents producers from taking advantage of all the business coming to them. One producer advises: "Continue to do our best to turn out material fast enough to fill orders coming in and on hand. The labor shortage is bothering us to a large extent." Chemical demand is particularly good in this section, and this condition is expected to continue throughout the coming winter. Reports from the New England district show plants oversold. Agricultural lime demand is good. While labor troubles are not so bad, curtailment of production is still made necessary due to shortage of proper help.

KELLEY ISLAND BUILDS NEW PLANT.

Buffalo, N. Y., Oct. 5.—The Kelley Island Lime and Transport Co. is building a plant along the Buffalo river, adjoining the Hamburg turnpike. The company will ship rock by boat and burn it here. F. A. Jones is manager of operations.

WILL MANUFACTURE HYDRATED LIME.

The Feldspar & Clay Products Co., Warton, Ont., has purchased the plant of the Crown Portland Cement Co., with the intention of manufacturing potash and hydrated lime.

New York, Oct. 4.—Eastern common and finishing lime are holding their own, common being quoted in 300-pound barrels, wholesale, \$1.50@1.55 and finishing, \$1.60@1.70. Hydrated common, per ton, \$9.50; hydrated finishing, per ton, \$12.68. Production is greatly reduced on account of scarcity of labor.

With the QUARRIES

Reducing Quarrying Costs.

By S. R. Russell.

We have been urging quarrymen for some time, in the pages of this magazine*, and otherwise to use explosives containing less nitroglycerin than the straight or gelatin grades. Our reasons are that it is possible for them to save money in their blasting operations besides helping us to conserve a commodity, the supply of which is steadily getting less. Explosives of the type of Red Cross Extra or Monobel Powder are admirably adapted to many quarry operations. Those who previously would consider nothing but "straight" or gelatin dynamite for their blasting work have had their eyes opened to the merits of these explosives after a trial.

The blast made recently at the quarry of The Colorado Portland Cement Co., Portland, Colo., with Monobel No. 6 shows that excellent results can be obtained with this explosive in quarry work.

The quarry face at Portland is from 39' to 49' high. The stone consists of homogeneous layers of limestone varying in thickness from 6" to 28" and separated by thin layers of shale also varying from nothing up to 6" or 8" thick. The stratification is flat and the quarry floor practically level.

Holes were drilled with a Keystone cable drill, size O, driven with a fifteen-horsepower variable speed electric motor, using a 5 1/2" diameter bit. Each hole was drilled two feet below the quarry floor level.

The blast consisted of forty-four holes, arranged in four rows. Holes were spaced 20' apart and the first row, consisting of fifteen holes, was set 20' back from the face, with 18' between the rear rows. From 265 to 425 pounds of Monobel No. 6 were loaded per hole. Each hole was primed with two No. 7 Du Pont electric blasting caps. One set of detonators was connected in series and the other set in parallel and all fired by means of a 220-volt D. C. power current. Sand was used for tamping.

The results of the blast were very satisfactory, both as to economy and fragmentation as is evidenced by a letter from Mr. Frank D. Walters, superintendent of the plant, part of which we quote:

"The shot was without doubt most successful. The charge of powder in the first row was figured for two and a quarter cubic yards of stone per pound. This was done in view of there not being any burden in front at the bottom from previous shot as steam shovel in the last cut through had cleaned up. Holes in the rear rows were loaded for two cubic yards per pound of explosive. This in view of obtaining a better shattering effect from the rear row holes must be more heavily loaded as they must contain sufficient powder to heave up and shatter the material rather than push it out."

The following summary gives in detail the cost of preparing and firing the whole blast:

Number of holes.....	44
Spacing average.....	20'
Burden average.....	20.6'
Depth average.....	43'
Tons of rock broken.....	61,182
Cubic yards.....	30,213
Cost of drilling (labor).....	\$ 261.89
Cost of drilling (power).....	24.00
Total cost of drilling.....	\$ 285.89
Total feet of hole.....	2,094
Cost per foot of hole (drilling).....	.1317
Cost per ton of rock (drilling).....	.0064
Charge of powder per hole.....	265 to 425 lbs.
Amount of Mon. powder in shot.....	14,850 lbs.
Amount of Giant powder in shot.....	100 lbs.
Cost of 44-42' fuses @ \$0.1848.....	8.13
Cost of 9-36' fuses @ \$0.1632.....	1.47
Cost of 42-24' fuses @ \$0.1200.....	5.04
Cost of Mon. @ \$0.125, including freight.....	1,826.25

Cost of Giant @ \$0.115, including freight.....	11.50
Cost of shot (powder and fuse).....	1,852.39
Cost of shot (drilling and loading).....	325.64

Total cost of shot.....	\$2,178.03
Cost per ton of rock (powder and fuse).....	.0302
Cost per ton of rock (drilling).....	.0046
Cost per ton of rock (loading).....	.0006

Total cost per ton of rock.....	.0354
Number of feet of powder in all holes.....	1,294
Number of pounds of powder in shot.....	14,850
Number of pounds of powder per foot of hole from 5 1/2" bit.....	12.25
Amount of rock broken per pound of powder:	
4.0 tons.	
2.03 yds.	

Results:
Shot appears to have broken up very good.
See description on other pages.

The following details are of a blast made at the quarry of The Rensselaer Stone Co., Brainerd Station, N. Y., in June:

The shot consisted of nine 5 1/2" well drill holes, varying in depth from 20' to 64'. Holes were spaced 20' apart and 20' back from the face. The rock in this quarry is a hard gneiss weighing about 170 pounds per cubic foot. The stone is crushed for railroad ballast and commercial purposes. This operation formerly used Du Pont straight and gelatin dynamite, but has recently adopted Red Cross Extra dynamite and find that the explosive is giving better results than any heretofore used.

Holes were loaded with from 250 pounds to 600 pounds each. Some of the holes contained as much as 8' of water and although the Red Cross Extra was loaded loose in the bore holes and allowed to remain in some holes seven hours before firing, excellent results were obtained.

In all 3100 pounds of Red Cross Extra 60 per cent and 1350 pounds of Red Cross Extra 40 per cent were used in the shot. Two No. 6 electric blasting caps were primed in each hole; connections made in series and blast fired with a Du Pont No. 5 blasting machine.

Stone was well broken and face pulled to grade. The quarry officials were well pleased with the results and say that it was the best blast ever made at the quarry. About 16,000 tons of stone were shot down in this blast.

* Du Pont Magazine.

WAR'S EFFECT UPON QUARRIES.

A new feature of the European war is its effect upon the magnificent quarries located in the fighting zone, says "Leschen's Hercules," house organ of A. Leschen & Sons Rope Co., St. Louis, Mo.

Stone men are familiar with the fact that often an accidental or careless explosion of dynamite may crack and so break up a deposit of stone as to practically ruin it. The powerful shells and mines that have exploded on the quarry sites of France have had the same effect.

It is currently reported that during the attacks upon Verdun at least 3,000,000 shells were fired per week. The explosion of these shells has doubtless shattered many a ledge of valuable stone.

While this material loss is inconsequential as compared to the loss of lives, it nevertheless illustrates war's far-reaching effect.

H. F. Morris, Empire Building, Pittsburgh, Pa., reports an exceptionally good year in the stone business. His quarries in Butler county have been busy all summer and his volume of trade is totaling a very satisfactory figure.

SCARCITY OF LABOR HAMPER STONE OPERATORS.

Pittsburgh, Pa., Oct. 5.—Stone quarries are still working with as large a force as they can get, considering the labor situation. The main trouble now, outside of the scarcity of labor, seems to be the difficulty in getting cars for prompt shipments. Many quarries are holding up and are accumulating stock on this account. The demand for bridge stone is good, and railroads are taking a large amount for contracting operations. Rubble stone is also a very fair seller. Limestone quarries are doing more, and they are selling an unusually large amount this fall to farmers for agricultural purposes.

ECHOES FROM THE QUARRIES.

The McManus & Downey Quarry Co., Keokuk, Ia., has closed a contract with the United States government for 20,000 cubic yards of stone for rip-rap work in shore protection and dams between Keokuk and LaGrange.

The Jackson Stone Co., whose plant at Covington, Ohio, was recently destroyed by fire, has not yet definitely determined whether to rebuild the plant. The matter will depend principally, it is understood, on the success with which the company meets in securing better shipping facilities, a direct connection with the C. H. & D. railroad being desired. If this cannot be done it is possible that the plant will not be rebuilt.

The Fuller Engineering Co. is building a large stone-crushing plant for the Oklahoma Portland Cement Co. at Ada, Okla. The stone will be used for commercial purposes.

The Pennsylvania Lines West have gained a lease to the Michigan Limestone and Chemical Co. for a fine location on the water front at Erie, Pa., known as the old Hannah docks. The limestone company will begin at once the erection of a building to cost \$200,000, and to employ 100 men. It has extensive quarries at Calcite, Mich., and its boats are considered among the finest that sail on the lakes. Its steamer, W. F. White, has a capacity of 10,500 tons, and the California, 7,500 tons. The company is the largest purchaser of ground limestone in the middle states and caters especially to a large agricultural business. At present it has a big booth at the Erie Exposition.

Andrew Babby, of Farrell, Pa., has bought four acres of ground, containing the old Duffy's stone quarry in Brookfield township, south of Sharon, Pa. The new owner proposes to operate the quarries at once and will also build a plant to manufacture cement blocks.

J. B. Millard & Son will spend several thousand dollars on improving their plant near Mannville, Pa. They are now taking bids on several pumps and will also spend quite a sum for quarry equipment. Mr. Jacob Millard is senior member of the firm.

NEW QUARRY INCORPORATIONS.

The Tuscarawas Quarry Co., Denison, Ohio; capital, \$10,000; incorporator, R. E. Brunswick.

Scotch Stone & Brick Co., Altoona, Pa.; capital, \$50,000; incorporators, R. B. Shellenberger, and W. E. Mackey.

SAND and GRAVEL

ELKHART LAKE FIRM OPENS NEW PIT.

The Elkhart Sand and Concrete Co. of Elkhart Lake, Wis., which is operating three gravel pits near Elkhart Lake, is opening up a new pit with a capacity of 100 cars of material a day and with its present output will be one of the largest producers of sand and gravel in the state of Wisconsin. The plants are located within a radius of one and a half miles. Approximately 500 acres of gravel and sand deposits are owned by this firm. All of the material is washed. Sales extend to all parts of the state.

The Elkhart Sand and Concrete Co. specializes on roofing gravel, crushed gravel and sand mixed for silo purposes and cement bridges, besides the regular output of highway material, which is shipped to all parts of Wisconsin.

With the addition of this new plant the company will be able to take care of the demand in the material line for over a 100 miles of concrete roads during the season.

Its slogan is "Better Roads," and it has furnished a great amount of material for concrete roads this season, the plants running twenty-four hours a day since June.

This company owns one of the finest torpedo sand pits in the state, a quality of sand used extensively for asphalt street work.

A. A. Laun is president, Jacob Reineck vice president, and Louis Laun secretary and treasurer of the firm.

SAND OPERATORS HAVE ACTIVE FALL.

Pittsburgh, Pa., Oct. 5.—Sand companies are keeping up their business this fall, although during the past two or three weeks there has not been such an active demand as previously. Fine weather has greatly aided building operations, and there is little question but that most of the sand companies have had a fairly busy fall. The weather has been at the right stage on all the rivers for good digging at a good profit, and except for the car shortage shipments have been going forward nicely. The big industrial concerns throughout this territory have been taking an enormous amount of sand this year for repairs and also for new plants. Considerable railroad work is also on the boards which will call for big deliveries of sand right along this fall. Prices are higher than last year and sand companies are going to wind up a much more profitable year.

NEW YORK SAND AND GRAVEL MARKET UNCHANGED.

New York, Oct. 4.—Sand and gravel prices in the New York market remain unchanged, with the demand fair. Quotations for week ending Oct. 2:

1½ inch.....	\$1.00
¾ inch.....	1.10
P. S. C. gravel.....	1.25
Paving stone.....	2.40
Screened and washed Cow Bay sand, 500 cubic yard lots.....	.50

Memphis, Tenn., Oct. 5.—Local sand and gravel firms are finding a picking up in autumn trade, insofar as the side interest from big farm activity will allow. Preparatory to winter rains and incident to highway development quite a lot of road work is being pushed forward.

DEMAND FOR BUFFALO SAND EXCEEDS SUPPLY.

Buffalo, N. Y., Oct. 5.—The demand for sand here this season has been greatly in excess of the supply.

"The Niagara Sand Corporation at no time has had an adequate supply at our docks," said J. E. Carroll, president of this concern. "At all times we have been 10,000 to 15,000 yards behind in our orders, notwithstanding the fact that our sand sucker has put in more actual days of pumping than in any previous season. This is the largest pump boat in the Buffalo territory. This same condition applies to the other sand-producing companies here. The output of the Niagara Sand Corporation, the Empire Limestone Co. and the Perry Victoria Sand Co., the three largest sand-producing companies in this city, is practically sold for the balance of the season. Our pumping operations will close near the end of December. Sand prices the early part of the season were inclined to be lower than the previous season. However, owing to the extraordinary demand for the Niagara river material, fall prices have been considerably stiffer than those of spring. There are many more concrete buildings going up in Buffalo than at any previous time since the building boom here about fifteen years ago. On Oct. 1 we began to store up sand for winter. We have been handicapped all season on account of lack of cars for shipments. Seventy-five per cent of our business is for out-of-town contracts. These are in carload lots for state highways, etc. Our output is 175,000 yards a year. We are contemplating the purchase of a sand sucker with a capacity of 500 yards."

NEW SAND AND GRAVEL INCORPORATIONS.

The Brunswick Gravel Co., Shelby county, Tenn.; capital, \$5,000; incorporators, Dover J. Barrett, W. S. Knight, Walter Hunter, B. M. Weaver and Gilmer Smith.

SAND AND GRAVEL SCREENINGS.

R. L. Dowdell and others have bought the plant of the Sharp Sand Co., just below Moundville, W. Va., and have organized the Ohio Valley Sand and Silica Co. to operate same. The new company will rebuild the plant at once and will have its office with the Suburban Brick Co., at Moundville, W. Va.

A big sand bank was opened up a few days ago while contractors were grading for the McConnellsburg & Ft. Loudon railroad near Shippensburg, Pa. This sand is said to be equal to the famous Berkeley Springs sand in West Virginia, which has been considered for years the best in the country.

The Crystal Sand Co. is spending from \$30,000 to \$40,000 upon its big sand washing plant near Vineland, N. J. The company has rich sand deposits there, and the entire concern is being modernized with new machinery to be operated with electric power. A railroad siding has been run in upon the plant and shipping facilities will be greatly improved. When the improvements are completed the Vineland plant will be one of the most complete and best equipped sand washers in the entire country.

South mountain sand banks at Stoney Point, Pa., which is owned by E. F. Millard & Son, is one of

the biggest industries in that part of the Keystone state. The same owners have another similar mine at Berkeley Springs, W. Va., which produces glass, engine and building sands. At the Franklin county banks, concrete, building and moulding sand is produced. The plant employs twenty-five men. Its building sand is yellow and white. The company has furnished 40,000 tons of concrete sand this year for the Cumberland valley railroad bridge at Harrisburg, and also a large amount of white sand for the Cumberland valley railroad bridge over the Potomac river.

The gravel pits at Cedar, Wis., will be run to capacity to provide material for the construction of a new \$2,000,000 ore dock and additional freight yard facilities at Ashland, Wis. E. E. Nash, assistant general superintendent of the Chicago & North western Railway Co., and G. J. Quigley, superintendent of the Ashland division, were in Ashland and at Cedar to arrange for the transportation of 400,000 yards of gravel. New equipment and track facilities are to be provided at the pit to increase the capacity to 2,500 yards of gravel daily.

EX-GOVERNOR BUYS GRAVEL PLANT.

Ex-Governor Earl Brewer of Alabama, Thad B. Lampton and D. J. Morrison have formed a company and taken over all of the holdings of the Tishomingo Gravel Co., near Mobile, Ala.

PUBLISHER'S STATEMENT.

Statement of the ownership, management, circulation, etc., required by the Act of Congress of Aug. 24, 1912, of ROCK PRODUCTS AND BUILDING MATERIALS, published semi-monthly at Chicago, Ill., for Oct. 1, 1916, State of Illinois, County of Cook.

Before me, a notary public in and for the state and county aforesaid, personally appeared E. H. Defebaugh, who, having been duly sworn according to law, deposes and says that he is the editor of the ROCK PRODUCTS AND BUILDING MATERIALS, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of Aug. 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor and business managers are:

Publisher, The Francis Publishing Co., 537 South Dearborn street, Chicago, Ill.

Editors, E. H. Defebaugh and F. K. Irvine, 537 South Dearborn street, Chicago, Ill.

Managing editor, F. K. Irvine, 537 South Dearborn street, Chicago, Ill.

Business manager, E. H. Defebaugh, 537 South Dearborn street, Chicago, Ill.

2. That the owners are (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock):

E. H. Defebaugh, 537 South Dearborn street, Chicago, Ill.

F. K. Irvine, 537 South Dearborn street, Chicago, Ill.

G. A. Olsen, 537 South Dearborn street, Chicago, Ill.

Mrs. Margaret McCall, 4505 North Artesian avenue, Chicago, Ill.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiants full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest, direct or indirect, in the said stock, bonds or other securities than as so stated by him.

E. H. DEFEBAUGH, Editor.

Sworn to and subscribed before me this Eighteenth day of September, 1916.

[SEAL.] JAMES S. PENNINGTON, Notary Public.

My commission expires Oct. 24, 1916.

GYPSUM PRODUCTS

PLASTERING ON CONCRETE.

Concrete has little or no suction. It is materially unlike any other plastering surface. For permanent results it is essential that the plaster applied meet the special requirements of concrete.

Ordinary plaster is not suitable because it is not sufficiently effective in counteracting the bond-breaking effect of the surplus water expelled during crystallization and drying out. This action, together with insufficient adhesiveness, often breaks the bond set up under the trowel. Repair expense results and occupants of the building are often subjected to possible injury from falling plaster.

Good bond plasters are so skillfully compounded that the usual expulsion of surplus water during crystallization is automatically controlled and the bond with the concrete is not disturbed. They also adhere strongly to concrete because in their plastic state suitable for troweling they are held in molecularly fine suspension, insuring the proper cementitious bond with the concrete. In addition to their excellent adhesive and cohesive properties, and the advantages mentioned above they maintain a practically unchanging volume during the process of setting and hardening.

Bear in mind that water is used in mixing concrete. Because of the thickness and density of a concrete wall, it requires a rather long period of time for the wall to become thoroughly dry. During this drying out process, the moisture is expelled to the surface, and occasionally brings with it an efflorescence in the form of salts, frostlike in appearance. This efflorescence is deposited on the surface of the concrete, and destroys the bond between the concrete and the plaster. While no plaster could withstand a severe condition of this kind, special bond plasters have proved their reliability.

Good bond plasters work well under the tools—have excellent spreading qualities—and need the addition of water only to fit them for use; are dense, durable and fire resisting. The demonstrated superiority of this material merits the confidence and favor of architects and builders.

A ton of bond plaster will cover 120 to 140 yards under average conditions.

Bond plaster is usually shipped in 100-pound cloth and 80-pound paper sacks.

Instructions for Applying.

The United States Gypsum Co. has prepared excellent instructions for applying its "U. S. G." bond plaster, as follows:

To secure the best results in applying bond plaster on concrete surfaces it is important that the following directions be absolutely complied with.

If there is any sign of efflorescence on the concrete surface thoroughly remove the frost with a wire brush, then wash the concrete surface with a diluted solution (one to five) of muriatic acid.

Side Walls—First brush to remove any dust from the surface. Then apply bond plaster as you would any hard plaster, using rod and darby, bringing to a true and even surface to receive the finish coat.

Ceilings—First brush to remove the dust from the surface. Then apply a scratch coat and slightly broom immediately. As soon as it has had enough time to draw a little, follow up with a second coat, bringing out under the darby to a true and even surface, leaving rough to receive the finish coat. Do not attempt to darby after the material has commenced to set or you will kill the face of the surface.

Trowel Finish—As soon as the base coat has thoroughly set and developed sufficient suction apply the finish coat in the customary manner.

Float Finish—If a float finish is to be used apply as soon as the base coat is thoroughly set. Do not drench the work with water. Use a damp brush only.

If a finish coat is not desired the work may be left under the trowel for papering.

Special Note—Do not mix more material than you expect to use in about one hour. Do not retemper mortar after it has commenced to set. Throw it away.

Clean mixing box after each gauging, and do not mix one gauging with another. Use clean water only, and keep tools clean. Do not wash tools in barrel containing water used for gauging. Keep temperature above freezing in winter. Keep out hot blasts of wind in summer, but as soon as plaster has set, allow free circulation of air. Should, however, the work show soft white spots after drying, wet up with a clean brush and water until these spots harden.

If plastering is done during damp or rainy season, use artificial or other means for drying out rooms after plaster has set.

GYPSUM DEPOSITS FOUND IN RUSSIA.

Immense deposits of gypsum have been discovered in the Astrakhan desert region of European Russia by an expedition sent to make a first reconnaissance of that little-known country.

The expedition traveled on camels and was compelled to take unusual precautions, as the desert is almost entirely waterless for a large portion of its length. Indeed, members of the party were forced to dig their own wells, thus providing water resources which had never been used before.

Despite the perils of the journey, due to the intense heat and lack of all vegetation, the expedition returned without the loss of a man. As a result of their survey, which was under the direction of I. L. Tomashevsky and the chemist, M. L. Olerov, a large area of unexplored territory has been mapped. An intensive study was made of the sands themselves, and signs of mineral wealth were evident to the scientists.

The gypsum beds, to which special attention was given, by reason of their size, and because heretofore no gypsum had been known to exist in the vicinity, are situated 150 versts (approximately 100 miles) from the station of Koraballi on the Riazan-Ural railroad. They extend over a huge area and are not less than 15 feet thick.

BUFFALO PLASTER PRICES IMPROVING.

Buffalo, N. Y., Oct. 5.—Plaster prices have been poor for the past two years, but are now better. The mills are busy and the prices are advancing.

C. A. Brown is now in charge of the McCoy Lumber Co.'s yard at Angola, Kan. Lawrence McCoy went to the company's mill at Horatio, Ark. Mr. Brown was at one time connected with the Long-Bell Lumber Co.

J. H. Rust, of Altamont, Kan., spent a six-weeks' vacation at Eldorado Springs, Mo. C. B. Kingsbury was in charge of the yard in his absence.

PROF. J. A. BOWNOCKER ON OHIO DEPOSITS.

"Ohio produced about 255,000 tons of crude gypsum in 1914 and this was about 10 per cent of the total production for the United States," says Prof. John A. Bownocker of the department of geology of the Ohio State University.

"The known workable deposits of gypsum in Ohio are restricted to a small area along the shores of Sandusky Bay in Ottawa and Sandusky counties. The beds are associated with those of limestone and vary from an inch or less to 17' in thickness. The beds lie nearly horizontal, but are not persistent. They appear to form elongated lenses and their lack of continuity makes it difficult to correlate beds in one mine with those in adjacent mines. The rock is fine-grained and massive. Its color varies from snow white to gray. Gypsum is softer than limestone and is not affected by acid, and these differences make it easy to distinguish between the two rocks. The deposits along Sandusky Bay lie near the surface, in places not more than 35', and in fact, the rock has been observed outcropping along the shores of the bay and probably this was the way it was discovered.

"Gypsum may be used in the raw state as a fertilizer and in manufacturing Portland cement, but more commonly it is calcined; that is, heated until the water is driven off, when it forms a white powder, and in this form has long been known as plaster of Paris.

"Gypsum has a number of uses. It has long been marketed as a fertilizer under the name land plaster, and in this application it is thought to neutralize any excess of alkali in soils. Another use is in the manufacture of cement, the gypsum serving to retard the setting of the cement. A third use is for wall plaster. Frequently this material is colored and then resembles Mexican onyx. Statuary and stucco work are similar applications. A fourth use is in polishing plate glass, the gypsum serving to cement the glass to the table while it is being polished. A fifth use is in the manufacture of plaster board, a substitute for wood laths in plastering. Among minor applications may be mentioned covering hot pipes, models for architects and artists' molds for potters and surgical uses."

OBITUARY.

John Kronenberg, who was secretary and treasurer of Machwirth Bros., dealers in roofing, etc., at 201 Oak street, Buffalo, N. Y., for several years, died recently at his home at Hamburg, N. Y. Mr. Kronenberg moved to Hamburg from Buffalo after his health failed. He was a member of the Buffalo Builders' Exchange since its inception. He was sixty-two years old.

James Thompson Golden, aged fifty-three, senior member of the firm of Golden & Crick, among the largest building contractors in Pittsburgh, died Sept. 12 at his home in Wilkensburg, Pa. He started in the contracting business in Pittsburgh thirty-two years ago, and his firm erected a large number of the biggest buildings in this city, and he was well and favorably known by dealers in builders' supplies.

A. P. Brickell has purchased the lumber and hardware business of the Bradfield-Hathaway Lumber Co. at Saffordville, Kan. Mr. Brickell is an old resident of Saffordville.

CLAY PRODUCTS

NEW YORK BRICK DEMAND HEAVY.

New York, Oct. 5.—Hudson River brick is selling like "hot cakes" and is being taken from the market as fast as it is received. Labor shortage is keeping the output from the works down to about forty per cent of capacity. Cold weather has made many negro laborers leave in droves for the Southland, 150 having been reported leaving Haverstraw, N. Y., in a single day.

Hungarians, Slavs, Poles, Greeks and Syrians have also been hunting new jobs.

In the Raritan district Sayre & Fisher have common brick to sell in the open market, all that the company could produce and load with its limited help being applied on contracts. Sales Manager Tuthill, of this company, which is considered one of the largest, is quoted as saying: "We could not sell any common brick if it were bringing nine dollars a thousand. The week of Sept. 23 we had to buy from other manufacturers in order to keep certain imperative engagements. We are now quoting no prices for the open market at all. We simply cannot get laborers enough to do our own work, and those we have are very independent."

The week ending Sept. 23 was a fair one, the settlement of a drivers' strike resulting in the brick market once more resuming activity. For that week there was a sale of forty-one cargoes, Manhattan taking fourteen as against only three the previous week.

Brick building is forging ahead in Brooklyn, but is quiet in Manhattan.

Quotations for Hudsons were firm at \$7 to \$7.25, with an upward tendency. Higher prices for early October seem likely on account of short supply and improved construction outlook.

Hollow tile has advanced twice during the past fortnight.

BUFFALO BRICK MARKET NORMAL.

Buffalo, N. Y., Oct. 5.—The face brick business in Buffalo in September was not extraordinary. In fact, it was only fair, according to one prominent dealer. The reason is that lately there have been no unusually large contracts for residences, office and commercial buildings calling for this product.

The common brick business has been very large, amounting practically to a famine of this product. This is on account of the extensive factory work going on in this city. The common brick people are several months behind in deliveries and are not meeting the demand.

NEW BRICK PLANT FOR CHICAGO.

The Tuthill Building Material Co., with offices at 138 West Sixty-third street, Chicago, on Oct. 2, opened a brick yard at One Hundred and Thirty-eighth street and Racine avenue for the purpose of manufacturing common brick. This is the firm's first venture in the brick-making line. The plant has an output of 200,000 brick per day and is located on the B. & O. C. T. tracks with a switch track running across the property.

The company reports that business at its two retail yards has been rather dull for the past two months, but during the past fortnight has been picking up nicely.

CLEVELAND BRICK FIRMS MERGE.

Through the consolidation of four large brick manufacturing plants, Cleveland, Ohio, will have a \$4,000,000 corporation. The firms merging into what will be known as the Barkwell-Farr Co. are the Farr Brick Co., Barkwell Brick Co., American Building Brick Co., and the Cuyahoga Brick and Shale Co.

BRICK MANUFACTURERS ENJOY GOOD YEAR.

Pittsburgh, Pa., Oct. 5.—Brick business is winding up in considerably better shape than last year. Stocks are not as large in proportion and prospects of unloading them this fall are much better. Prices have been somewhat higher, especially on paving brick. Manufacturers in this line have made much more money than in any of the past few years. Brick manufacturers, while they have not shared so liberally in the prosperity, have also done better, and are quite well satisfied with fall business and the outlook for winter.

An interesting happening that occurred during last month was the dissatisfaction in labor circles. In all three western provinces there has been a distinct scarcity of labor and consequently wages have been soaring. Considerable trouble has been encountered at Winnipeg, and the local builders' exchange and carpenters' union have come to the following agreement: "A nine-hour day and six days per week, hours to be from seven a. m. to twelve noon and from one to five p. m. In June, July and August the Saturday hours terminate at noon. The wages to be paid to carpenters are fifty cents per hour as a minimum; members of the brotherhood to have the preference. The maximum wages for form carpenters or helpers is stipulated at thirty-five cents per hour." A significant clause of the agreement is that which says: "No grade or class of workmen using carpenters' tools to be paid a wage between thirty-five and forty cents per hour." Dominion day, Labor day and Christmas day are stipulated as holidays and it is expressly stipulated that no work shall be done on Labor day.

Tenders have been received for the completion of the notorious Manitoba Parliament buildings at Winnipeg. It will be remembered by many of the Chicago readers of Rock Products and Building Materials that the contractor for this building, Thomas Kelly, was recently extradited from the United States after a most unusual trial at Chicago which lasted many months. Owing to the increase in costs of materials and labor the estimates now made on this building to complete the work are away above those originally tendered. The J. McDiarmid Co., Ltd., has tendered a bid of \$3,128,018 to complete the unfinished portion of the building, which will bring the cost up to \$5,500,000. They were practically the only bidders for the whole structure, although Thomas Kelly & Sons, the original contractors, offered to finish the work on the basis of their original tender which is about \$1,500,000 less than the J. McDiarmid Co. Government officials claim that the high figures submitted are due to the increased price of materials since the Kelly contract was awarded, that of steel being 100 to 150 per cent higher, and copper and brass 200 to 300 per cent higher.

One of the most interesting engineering works in Western Canada now drawing to a completion is

the Selkirk tunnel through the Rocky Mountains. Officials of the Canadian Pacific railroad say that this tunnel will be through this fall. It will be six miles long through a peak whose top pierces the clouds. Many unique engineering difficulties were encountered during the work of boring this tremendous tunnel. Its cost was \$12,000,000.

NEWS OF THE FIELD.

The Willets Clay Co., Fairmont, W. Va., is arranging to develop a large deposit of clay in connection with the work of the Fairmont Improvement Association.

The dry house at the Henry Shinghaus brick works at New Philadelphia, Ohio, was badly damaged by fire last week.

The roof of the kiln shed of F. H. Haumerson & Sons, brick manufacturers, Racine, Wis., caught fire recently. The kiln had just been completed to burn 400,000 bricks, and the fire started in the kiln and set fire to the roof of the shed. Quick work on the part of the Racine fire department saved the plant from serious damage.

Henry Kelso, of Portsmouth, Ohio, is one of the stockholders of the old Middleport Brick Co., at Middleport, Ohio, and he is trying to get the company to put more money into the operation and put the plant in shape for running again.

L. J. Graham, of Zanesville, Ohio, has bought the Nuce farm of fifty-five acres, adjoining Concord, Ohio, and expects to mine a clay deposit on the farm.

The Clydesdale Brick & Clay Co., of Pittsburgh, Pa., which has a plant at Ellwood City, Pa., has become a licensee of the Dunn Wire-Cut Lug Brick Co., of Conneaut, Ohio. L. J. Orth is president and W. W. Cunningham, vice-president and general manager. The Ellwood City plant has a capacity of about 100,000 paving bricks per day, and the company expects to double this output in the near future.

Cyrus Thorne, of Linden Heights, North Columbus, O., is one of the leading men in the reorganization of the Helm Clay Products Co., near Carbonhill, O. The company has taken out a new charter and will engage in mining coal as well as manufacturing brick.

The Weston Brick Works, Weston, W. Va., which are owned by Dr. E. I. Keener of that place, have been making extensive improvements to their plant this summer.

NEW CLAY PRODUCTS INCORPORATIONS.

Long Island Brick Co., New York, capital \$350,000, to manufacture, sell and deal in all kinds of bricks and clay products; incorporators, H. O. Coughlan, L. H. Gunther, Joseph F. Curtin, all of New York.

Hocking Valley Clay Products Co., Inc., Manhattan, N. Y., capital \$100,000; incorporators, W. J. Kingden, U. S. Hopkins and E. Ward.

Liberal Impervious Face Brick Co., Liberal, Mo.; capital, \$60,000; incorporators, C. W. Hartgen, L. G. Morgan and Roy Todd.

Clifton-Aldan Brick Co., Philadelphia, Pa.; capital, \$100,000; incorporators, F. R. Hansell, George H. B. Martin and S. C. Seymour.

Whiteman-Krewson Clay Products Co., Wilmington, Del.; capital, \$200,000; incorporators, Herbert E. Latter, Norman P. Coffin and Clement M. Egner.

GET IN LINE AND BOOST FOR PROGRESS.

(Continued from page 16.)

physically practical, and to the actual adjustment of disputes and irregularities that are reported by members with the practical data for such procedure.

In every district one or more improvements have already been brought about that mean a great deal to the local situation. The amount of adjustments developing yet to be worked upon are almost incredible as existing in the progressive state of Ohio. Gaines is the busiest man in the supply business in Ohio. He has the hearty support and active assistance of the officers and directors of the Ohio Builders' Supply Association in every move, and he keeps in close touch with President Holst, Secretary Kinney and each of the directors, all of whom are doing a full share of the work in the organizing campaign, particularly in their own neighborhoods.

The new era dawning in the builders' supply business in Ohio is destined to make better trade conditions everywhere, for all the dealers can get similar benefits by getting busy, and it will be a pleasure to go more particularly into detail whenever the information is wanted elsewhere.

Ashtabula Meeting.

The second monthly meeting of District No. 11 was held at the Hotel James on Tuesday evening, Oct. 3. Chairman Robinson reported that every dealer on the list had been invited to attend. All had expressed great interest in the movement, with a single exception, and he was confident that all of the legitimate dealers of the district would join the association within a short time. Conneaut, one of the towns of the district was reported by Mr. Lininger as being in bad condition as to sales of cement. The offending factor pleaded ignorance of the ethics of the trade, and promised to keep in line in the future if he continued in business. Adjustments of service charges for long hauls were aimed at in two cases. Interpretation of the verbiage of bonds and the lien law came up for consideration. Every man at the meeting had his say, and some of them several says. Matters for further correspondence were given to Mr. Gaines to take in to the central office. Those present were:

H. S. Gaines, Ohio Builders' Supply Association, Columbus, O.
M. C. Robinson, chairman, Ashtabula, O.
W. H. Stockton, Ashtabula, O.
C. W. Wood, Andover, O.
G. A. Van Winckler, Dorset Milling Co., Dorset, O.
J. B. and Fred Harrington, C. W. Harrington & Sons, Rock Creek Station, O.
Lininger & Bennet, Conneaut, O.
The Geneva Milling Co. (two representatives), Geneva, O.
Cowdery Coal Co., Geneva, O.
E. S. Stoddard, Conneaut, O.
O. H. List, Kelley Island Lime and Transport Co., Cleveland, O.
D. T. Bowen, Cleveland Builders' Supply Co., Cleveland, O.
W. H. McDowell, Universal Portland Cement Co., Pittsburgh, Pa.
L. J. Fleischman, Dunkirk, N. Y.
Fred K. Irvine, ROCK PRODUCTS AND BUILDING MATERIALS, Chicago.

Painesville Meeting.

The regular monthly meeting of District No. 10 was held at the Parmly Hotel. J. J. Kirby is an energetic and deeply interested chairman. He called up every recognized dealer in the district during the afternoon just before the meeting, and found that truly two-thirds of the list would be present, with promises from all of the others that they would come into the fold in the near future. At the opening Mr. Kirby announced that Painesville proper was in very satisfactory shape. He called upon all of the dealers present to verify this. He stated that he was authorized to speak for G. F. Callander & Son, the only Painesville dealer not present. The representative of the Madison Milling Co. reported the unfair competition of an association of farmers, who conduct a retail business without profit for their members. The practice is for the farmers' organization to buy supplies of any and every kind in carload lots, and parcel out the materials to their own members at cost. There never was a clearer case of selling direct to the consumer, although it

is consumers grouped collectively. This organization demoralizes quotations on Portland cement, agricultural lime and sewer pipe. They are not entitled to dealers' quotations because they give away all margins and cash discounts, and freely quote these staples when they appear to be out of the goods to prevent purchasers at legitimate trade quotations. The manufacturers supplying this institution will be appealed to for assistance. Mr. Bartholomew of Perry, reported the irregularities developed by a new dealer coming in at that town, and the retaliation attempted by another dealer at Perry who is also a contractor, all of which made the season's business unprofitable to all parties. Service charge adjustments for long hauls were completed in a satisfactory way between C. A. Norton, of Mentor; Goff-Kirby Coal Co., of Willoughby; A. T. Hill Co., Willoughby; and the Wickliffe Supply Co., Wickliffe. This was a long four-sided discussion that developed considerable heat and got down to details of freight rates, unloading and teaming costs. The representatives of each one of the concerns involved declared themselves as very well satisfied with the improvements arrived at. Mr. Gaines, with the parties to the discussion, decided to take up the matter of competition in the Metropolitan market of Cleveland with the leading dealers of that city in the near future. At a late hour the meeting adjourned with the interest growing apace. Those present were:

H. S. Gaines, Ohio Builders' Supply Association, Columbus, O.
J. J. Kirby, Truby Coal Co., Painesville, O.
Madison Milling Co., Madison, O.
J. G. Bartholomew, Perry, O.
Robert McMillan, Painesville, O.
P. W. Benskin, Painesville Coal and Builders' Supply Co., Painesville, O.
C. A. Norton, Mentor, O.
C. H. King, Chardon, O.
Wickliffe Supply Co., Wickliffe, O.
Goff-Kirby Coal Co., Willoughby, O.
A. T. Hill & Co., Willoughby, O.
A. G. Smith, Woodville Lime and Cement Co., Toledo, O.
O. H. List, Kelly Island Lime and Cement Co., Cleveland, O.
W. H. McDowell, Universal Portland Cement Co., Pittsburgh, Pa.
D. T. Bowen, Cleveland Builders' Supply Co., Cleveland, O.
Fred K. Irvine, ROCK PRODUCTS AND BUILDING MATERIALS, Chicago.

Other Meetings Recently Held.

On Sept. 19, 20 and 21 meetings were held at Marion, Springfield and Dayton. They were well attended and twenty-six new members were secured.

The meeting at Marion was held at the Hotel Pilgrim on Tuesday, Sept. 19, and District No. 35 perfected, with J. L. Price, of Marion, as chairman. The new members secured at this meeting are:

Bucyrus, H. S. & B. B. Co., Bucyrus, O.
B. L. Ryland & Son, Bucyrus, O.
The Bucyrus Lumber Co., Bucyrus, O.
C. F. Bonebrake, Bucyrus, O.

On Wednesday, Sept. 20, District No. 21 was organized at the Arcade hotel, Springfield, with S. P. Harris, of the Beckley & Myers Ice & Fuel Co., Springfield, as chairman, and Joseph Murphy, of the Murphy Lumber Co., Urbana, as secretary. The new members secured at this meeting are:

Arthur Clemens, South Solon, O.
Elmer E. Stillwell, Bellefontaine, O.
The Murphy Lumber Co., Urbana, O.
The Logan County Lumber Co., Bellefontaine, O.
Thomas Heap, Urbana, O.
The Houston Co., South Charleston, O.
Beckley & Myers Ice & Fuel Co., Springfield, O.
John B. Van Wagener, London, O.
The London Lumber & Coal Co., London, O.

District No. 22 met at the Hotel Algonquin, Dayton, on Thursday, Sept. 21, and elected E. C. Weber, of the Grove & Weber Co., Miamisburg, chairman. The new members of this district are:

H. J. Niswonger, Arcanum, O.
Wagoner Bros., Greenville, O.
Maddox Co., Xenia, O.
John Helser & Son, Miamisburg, O.
The Grove & Weber Co., Miamisburg, O.
Germantown Lumber Co., Germantown, O.
F. D. Copp & Son, West Alexandria, O.
T. W. Bickel & Son, West Alexandria, O.

Other new members secured during the week ending Sept. 23, by districts are:

DISTRICT NO. 5.
Miller & Wagner, Alliance, O.
Crystal Park Lumber & Coal Co., Canton, O.

DISTRICT NO. 7.
J. C. Morris, Shelby, O.
Will & Kerr, Shelby, O.

DISTRICT NO. 15.
Beach & Chandler, Plain City, O.
Other meetings have been held in the state as follows:

Tuesday, Sept. 26, Lima House, Lima, Ohio.
Wednesday, Sept. 27, Hotel Crosby, Defiance, Ohio.
Thursday, Sept. 28, The Hays, Fostoria, Ohio.
Thursday, Oct. 5, Hotel Sherwood, Newark, Ohio.

GROWTH OF COMMERCIAL VEHICLES.

The rapid growth in the number of commercial motor vehicles during the last five years is impressively shown in some data recently compiled by H. C. Hutchins, assistant engineer in the Manhattan Department of Public Works, with reference to traffic on Eighth avenue, New York City. On this avenue alone, where the traffic is largely commercial, the increase in the number of motor trucks operated on that thoroughfare in less than five years amounts to 516 per cent.

It all goes to show, beyond any argument to the contrary, that the business man is thoroughly aware of the advantages and economy in using motor trucks, instead of horse-drawn vehicles, declared E. A. Williams, Jr., president of the Garford Motor Truck Co., of Lima, Ohio, one of the oldest and largest motor truck manufacturing concerns in the world.

The New York figures, continued Mr. Williams, reveal that on Eighth avenue, which is an excellent indication of commercial traffic conditions on other streets of a like nature, traffic returns in 1911 at Forty-second street showed 4,528 horse-drawn and 1,728 motor vehicles; by the latter part of 1915 these figures had grown to 4,898 horse-drawn and 6,606 motor vehicles. These figures include all classes of motor cars. But the motor trucks showed the largest increase—from 537 in 1911 to 3,309 in 1915, or, in other words, a gain of 516 per cent in less than five years. The motor traffic as a whole gained 283 per cent, while all classes of vehicle traffic increased 68 per cent. The increase in total vehicle traffic, it is explained, was partly due to a new pavement.

On the face of those figures, an important point is that more and more motor trucks are being used in commercial business. There is another and more important point, however, in the interesting fact that the growth of motor truck traffic resulted in greatly increased tonnage figures. For instance, the tonnage carried Oct. 16, 1911, by 7,022 vehicles was 13,284 tons—or an average of 1.89 tons per vehicle. On Dec. 3, 1915, there were 31,918 tons carried in 12,102 vehicles, or 2.63 tons per vehicle.

Those figures not only prove that the motor truck has increased the unit loading capacity of a vehicle, as Mr. Hutchins states, but that they have consequently helped to relieve the congestion, inasmuch as the total number of vehicles required to carry a given tonnage through city streets is reduced as a result of the greater loading capacity.

As I said before, all of those figures portray most forcibly the point that the business man is rapidly becoming acquainted with the possibilities of commercial motor vehicles and, more than that, they show what can be accomplished with reference to tonnage. The economical features of the motor truck are just as easily explained. In fact, they have been demonstrated so often that further explanation is practically unnecessary. The New York situation is simply another evidence of the passing of the horse for commercial trucking.

TRADE NOTES.

The National Paving Brick Manufacturers' Association has just published two booklets containing specifications for the construction of vitrified brick streets and vitrified brick country roads. One of these booklets deals with the construction of these pavements under the green concrete foundation type and the other under the sand-cement superfoundation type. These specifications are the first and only ones ever issued for the construction of these two types of roads by the association.

The September "Medusa Review," published by the Sandusky Cement Co., Cleveland, Ohio, contains among other interesting pictures and stories a description and illustration of the residence of John C. Reid, at Wheeling, W. Va. The residence is a handsome building. The stucco walls were made of "Medusa" white cement, treated with Medusa waterproofing, coarse lake sand and ten per cent lime putty with a stipple finish.

The Portland Cement Association, 111 West Washington street, Chicago, has just published a little pamphlet and dedicated it to National Fire Prevention Day. The publication, which is entitled "Concrete Houses and Why to Build Them," contains a number of illustrations showing residences ranging from the humble cottage up to the stately mansion. Other publications recently issued by the Association are "Concreting in Cold Weather" and "That Alley of Yours."

A "Manual of the American Steel & Wire Co.'s System of Water Purification" has just been published by that company. Tables, charts, and numerous articles tell of practical plans of installation and operation. Copies may be had on request.

The market place of the building material industry. Employment department, machinery wanted and for sale, etc. If your wants are not answered in this page, write a letter to this office.

THE FRANCIS PUBLISHING CO.
537 S. Dearborn Street Chicago, Illinois

:: THE :: BOURSE

Advertisements will be inserted in this section at the following rates:

For one insertion.....25 cents a line
For two insertions.....45 cents a line
For three insertions.....60 cents a line

Eight words of ordinary length make one line. Heading counts as two lines. No display except the headings can be admitted.

Remittances should accompany the order. No extra charges for copy of paper containing the advertisement.

EMPLOYMENT WANTED

BY MARRIED MAN, 33 years old, technical graduate, as chief electrician or electrical engineer. Address Box 1157, care ROCK PRODUCTS AND BUILDING MATERIALS.

A man with executive and operating ability seeks position as assistant or superintendent of cement factory. Address Cement, care ROCK PRODUCTS AND BUILDING MATERIALS.

WANTED—Position as quarry superintendent. 25 years' experience erecting and operating large stone crushing plants and opening quarries. Reference. Address Box 1151, care ROCK PRODUCTS AND BUILDING MATERIALS.

H. S. ANDERSON having resigned his position as manager of the Wiggim Gravel Co., at Germantown, Ohio, is open for a position, to superintend the construction of a gravel washing or stone crushing plant or to superintend a plant in operation. Can give best of references and have had a number of years' experience. Address H. S. ANDERSON, GERMANTOWN, OHIO.

EMPLOYEES WANTED

Assistant superintendent wanted for cement mill in the East. Must be a high grade man with the experience and education qualifying him for this position. State age, experience and salary expected. Address Box 1158, care ROCK PRODUCTS AND BUILDING MATERIALS.

MACHINERY WANTED

WANTED—Crushing rolls about 36"x18". State conditions, service and price. Newsom Crushed Stone & Quarry Co., Antioch, Tenn., R. F. D. No. 2.

WANTED. Two Rotary Kilns for burning cement, large size kilns preferred. Rotary coolers for same if possible. Please give full description and price f. o. b. cars. Address Box 1150, care ROCK PRODUCTS AND BUILDING MATERIALS.

BUSINESS OPPORTUNITIES

Want to represent good lines in Building Material for Great Britain, France and Belgium. We are in close touch with the best architects. Correspondence solicited. CULVER & FERGUSON, 710 Royal Liver Bldg., Liverpool, Eng.

DESIRING TO RETIRE FROM BUSINESS, I offer for sale on easy terms, the best located property in Wilmington, Del., for the following: Coal, carpet cleaning, lime, sand, cement, lumber, ice and feed business; established in 1888. JOSEPH H. GOODING, Scott, 13th and 14th Sts., Wilmington, Del.

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ROCK PRODUCTS AND BUILDING MATERIALS

Index to Advertisements

OCTOBER 7, 1916

<p>Allis-Chalmers Mfg. Co. 34</p> <p>American Clay Machine Co. 34</p> <p>American Clay Co. 34</p> <p>American Process Co. 34</p> <p>American Pulverizer Co. 34</p> <p>American Steel & Wire Co. 34</p> <p>Atlas Car & Mfg. Co. 34</p> <p>Atlas Portland Cement Co. 34</p> <p>Austin Mfg. Co. 34</p> <p>Bacon, C. Marie. 7</p> <p>Ball Engine Co. 7</p> <p>Bates Valve Bag Co. 6</p> <p>Bartlett, The C. O., & Snow Co. 35</p> <p>Best Bros. Keene's Cement Co. 39</p> <p>Books for the Trade. 39</p> <p>Bourse, The. 33</p> <p>Bradley Pulv. Co. 33</p> <p>Butterworth & Lowe. 7</p> <p>Byers Mach. Co., John F. 7</p> <p>Cable Excavator Co. 2</p> <p>Cabott, Samuel, Inc. 2</p> <p>Caldwell, H. W., & Son Co. 2</p> <p>Calvert Mortar Color Works. 19</p> <p>Cardiff Gypsum Plaster Co. 19</p> <p>Carolina Portland Cement Co. 30</p> <p>Chalmers & Williams. 30</p> <p>Chattanooga Paint Co. 30</p> <p>Classified Business Directory. 30</p>	<p>Clinchfield Portland Cement Corp. 34</p> <p>Clinton Metallic Paint Co. 34</p> <p>Coplay Cement Mfg. Co. 1</p> <p>Crane, P. D., Co. 34</p> <p>Dull Co., Raymond W. 9</p> <p>Dunning, W. D. 39</p> <p>Du Pont de Nemours & Co. 39</p> <p>Edison Portland Cement Co. 22</p> <p>Ehrsam, J. B., & Sons Mfg. Co. 22</p> <p>Farrell Fdy. & Mch. Co. 6</p> <p>Fate Co., J. D., The. 6</p> <p>Federal Motor Truck Co. 33</p> <p>Frank, M. K. 33</p> <p>French, Sam'l H., & Co. 33</p> <p>Fuller Eng. Co. 33</p> <p>Garford Motor Truck Co. 37</p> <p>General Fireproofing Co. 21</p> <p>Glutrin Paving Co. 20</p> <p>Goodrich, B. F., Co. 40</p> <p>Grimshaw Co., W. B. 33</p> <p>Haiss, Geo., Mfg. Co. 6</p> <p>Harsh, Earl C. 33</p> <p>Hendricks Mfg. Co. 33</p> <p>Hunt, Robert W., & Co. 33</p> <p>Huron & Wyandotte Portland Cement Co. 2</p> <p>Imperial Belting Co. 6</p> <p>Improved Equipment Co. 6</p> <p>Interstate Mfg. Co. 33</p> <p>Jaite Co., The. 33</p> <p>Jeffrey Mfg. Co. 33</p> <p>Johnston & Chapman Co. 33</p> <p>K-B. Pulverizer Co., Inc. 7</p> <p>Kelley Island Lime & Trans. Co. 10</p> <p>Kent Mill Co. 10</p> <p>Kritzer Company, The. 10</p> <p>Lakewood Eng. Co. 3</p> <p>Lehigh Car Wheel & Axle Co. 8</p> <p>Leschen, A., & Sons Rope Co. 39</p> <p>Lewistown Fdy. & Mch. Co. 4</p> <p>Link-Belt Company. 4</p> <p>McLanahan Stone Mch. Co. 35</p> <p>McMyler Interstate Co. 35</p> <p>Metropolitan Paving Brick Co. 35</p> <p>Midland Crusher-Pulverizer Co. 7</p> <p>Miscampbell, H. 7</p> <p>Mitchell Lime Co. 7</p>	<p>National Lime & Stone Co. 21</p> <p>National Mortar & Sup. Co. 21</p> <p>National Retarder Co. 21</p> <p>New York Rubber Co. 21</p> <p>North Western States Portland Cement Co. 35</p> <p>Ohio & Western Lime Co. 6</p> <p>Ohio Locomotive Crane Co. 6</p> <p>Osgood Co., The. 6</p> <p>Pennsylvania Crusher Co. 2</p> <p>Pierce Arrow Motor Car Co. 21</p> <p>Plymouth Clay Products Co. 21</p> <p>Plymouth Gypsum Co., The. 21</p> <p>Pollock, Wm. A. 7</p> <p>Raymond Bros. Impact. Pulv. Co., The. 2</p> <p>Revere Rubber Co. 2</p> <p>Reynolds Asphalt Shingle Co. 2</p> <p>Ricketson Mineral P. Wks. 2</p> <p>Ruggles-Coles Eng. Co. 2</p> <p>Sanderson Cyclone Drill Co. 40</p> <p>Sandusky Cement Co. 40</p> <p>Sauerman Bros. 40</p> <p>Schmidt, C. G. A. 33</p> <p>Sciote Lime & Stone Co. 5</p> <p>Seaverns, J. S. 5</p> <p>Smidth, F. L., & Co. 35</p> <p>Standard Portland Cement Co. 35</p> <p>Stacy-Schmidt Mfg. Co. 2</p> <p>Stedmans Fdry. & Mach. Co. 2</p> <p>Stephens-Adamson Mfg. Co. 19</p> <p>Sturtevant Mill Co. 8</p> <p>Sykes Metal Lath & Roofing Co. 10</p> <p>Toch Brothers. 22</p> <p>Toepfer, W., & Sons. 40</p> <p>Tomkins Bros. 8</p> <p>Traylor Eng. & Mfg. Co. 20</p> <p>Trussed Concrete Steel Co. 20</p> <p>U. S. Gypsum Co. 22</p> <p>Utica Hydraulic Cement Co. 22</p> <p>Vigo-American Clay Co. 34</p> <p>Webb City & Cartersville Fdy. & Mach. Co. 7</p> <p>Webster Mfg. Co. 34</p> <p>Weller Mfg. Co. 34</p> <p>Wheeling Wall Plaster Co. 3</p> <p>White Co., The. 38</p> <p>Whitehall Cement Mfg. Co. 38</p> <p>Williams, C. K., Co. 38</p> <p>Williams Patent Crusher & Pulverizer Co. 38</p> <p>Wisconsin Granite Co. 10</p> <p>Wolverine Port. Cement Co. 10</p> <p>Worthington Pump & Mach. Corp. 9</p>
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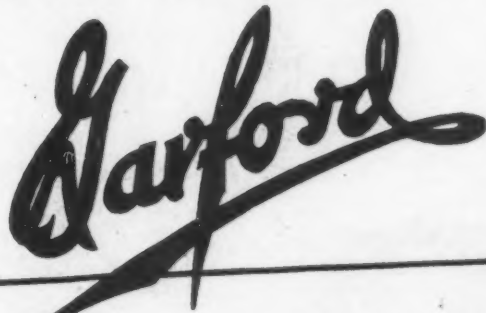
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Bernardsville, N. J., June 6th, 1916.

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Lima, Ohio.

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Since I have had this GARFORD MOTOR TRUCK, I find that it does the work of THREE teams and it has been on the road every day the weather permitted us to work.

You are perhaps aware that there are many mountains here and the roads are so steep and bad that a team can only make two trips a day over our hauling route, -but the GARFORD does not mind the hills in the least and hauls SIX loads (six trips) every day, with only one man to drive it and a helper, carrying as large a load each time as the team would!

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In speaking of the White Trucks' work, R. J. Breen, Superintendent of the Cleveland Trinidad Paving Co., who have the road contract, had the following to say: "I can safely estimate that the White Trucks saved us at least \$40.00 a day in haulage cost over the price we would have had to pay to haul the materials by teams, and the teams could not have kept the giant mixer busy.

"Each White Truck can do the work of twelve teams, saving us more than 50 cents a yard on haulage cost.

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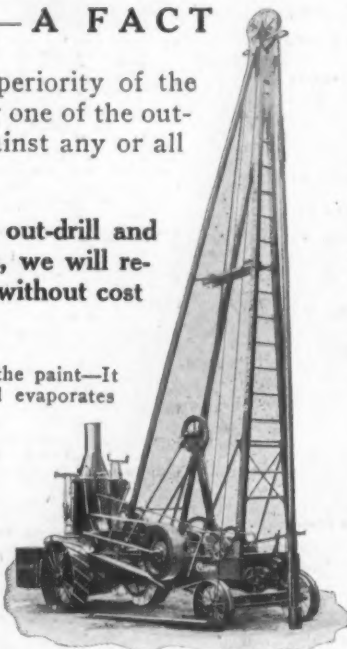
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